Banking Institutions in Developing Markets

Volume 1

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World Bank
Washington, D.C.
Banking Institutions in Developing Markets

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Building Strong Management and Responding to Change

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The World Bank
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# Contents

**Foreword** vii

**Preface** ix

1. **Toward banking excellence** 1
   - The importance of management 1
   - The preconditions for sound bank management 2
   - Corporate governance 2
     - The primacy of the board of directors 2
     - Policymaking 3
   - The characteristics of sound management 3
   - Institutional development of the key banking functions 3
     - Planning 3
     - Credit risk management 4
     - Financial management 4
     - Human resource management 4
     - Compliance and control systems 4
     - Information technology 4
   - Conclusion 5
   - Notes 6

2. **Planning** 7
   - Planning defined 7
   - The special case of banks in developing financial markets 8
     - Financial policy adjustments 8
     - Institutional role 8
   - Application of the model planning system 9
   - Types of planning 9
     - Strategic planning 9
     - Tactical planning 10
     - Financial planning and budgeting 10
   - Developing a strategy 10
   - The operational planning process 12
     - The input and analysis phase 13
     - The decision phase 15
     - The documentation phase 16
     - The plan review phase 16
   - Divisional plan format and contents 16
     - Summary of plan components 16
     - Divisional strategy in the six management areas 18
   - Summary and conclusion 21
   - Annex A: Checklist for strategy testing 22
   - Annex B: Bank projection model 24
   - Notes 29
3. Managing credit risk Diana McNaughton, with Clayton Townsend Dietz 31
The objectives of credit risk management 31
The challenge of credit risk management in developing markets 32
Credit policies, directives, and procedures 32
  Credit policy 32
  Directives 33
  Procedures 34
An overview of credit risk management 34
  Credit origination 34
  Repayment source analysis 34
  Loan structure 36
  Credit approval 36
  Loan documentation 38
  Collateral and guarantees 38
Loan supervision 41
Problem loans and work-outs 42
  Warning signs 42
  First steps in reaction to potential problem loans 43
  Work-out strategies 44
  Asset classification and accounting treatment 44
Organizational structure of the credit function 46
  Credit policy and supervision 46
  Lending divisions and branches 46
  Senior credit officer 47
  Loan documentation unit 47
  Loan review 47
Portfolio management 48
  Risk factors 48
  Risk underwriting standards 50
Insider abuse and off-balance-sheet risk 52
Pricing commercial loans and other credit products 52
  Interest 53
  Fees 54
  Market-pricing trends 54
  Commercial loan systems 55
Training 55
Conclusion 56
Annex A: Portfolio management evaluation procedures 57
Annex B: Credit risk management: internal control questionnaire 58
Annex C: Credit culture checklist 60
Notes 62

4. Financial management Peter Falletti 64
Structural change in the banking environment 64
Financial management in developing financial markets 65
The objectives and scope of financial management 65
Strategic planning 67
  Designing a process for analyzing proposed capital expenditures 67
  Providing the format and related definitions for financial projections 67
  Developing a financial model 67
  Setting the overall risk parameters 68
Capital planning 68
  Calculating risk-adjusted capital ratios 68
  The role of financial management 70
5. Building human capital for banking  Donald G. Carlson  84

Objective 1: Organize people to work effectively  85
  Organizational structuring  86
  Responsibility  89
  Job structuring  90
  Requirements-based staffing  90

Objective 2: Optimize present and future staffing levels and skill mix  91
  Optimizing current staffing levels and skill mix  92
  Response to the changing demand for human resources  94
  Conclusion  97

Objective 3: Build the right skills and work culture  98
  Skill and attitude needs analysis  99
  Individual assessment  100
  Training and development  102
  Institutional culture development  104
  Capability-based recruitment and selection  105
  Conclusion  106

Objective 4: Manage performance to achieve business goals  107
  Leadership development  107
  Business planning and human resource management  107
  Goal setting and action planning  108
  Performance monitoring and measurement  109
  Rewards management  110
  Career motivation  111
  Active management  112
  Conclusion  112

Organizational requirements  113
  Relative roles of line and staff managers  113
  Organizing the human resource function  113
  Organizing the line management role  114
  Conclusion  114

How can we cause positive change?  114
Conclusion  115
6. Toward a program of institutional reform 117
   A framework for institutional development 117
     Institutional development 117
     Bank privatization issues—a framework for analysis 119
     Training in institutional development 120
     Information technology and bank automation 120
     The World Bank and institutional development—reflections on experience 120

Annex A: Core curriculum 122
Notes 123

Appendixes
1. Risk asset management review 124
2. Asset and liability management David Scott 138
3. Managing foreign-exchange risk David Scott 143
4. Operating and financial controls 150
5. Information technology in the banking industry Khalifa Ikramullah 155

References 166

Tables
2B.1 Sample for XYZ nationalized commercial bank 25
3.1 Evaluation of collateral 40
3.2 Classifications for framing credit policy for managing loans 45
3.3 Suggested portfolio limits in terms of stated capital and reserves 50
3.4 Risk asset acceptance criteria 51
4.1 Calculation of risk weights 69

Boxes
1.1 Organizational structure of a bank 5
2.1 Sources of competitive strength 11
2.2 Competitive market structure 12
2.3 Planning and budgeting model 14
2.4 Sample format for a division’s financial objectives 18
2.5 Sample format for an action plan 19
3.1 Flowchart for credit risk management 35
3.2 Four steps in the credit analysis process 36
3.3 Purpose of the financing and sources of repayment 37
3.4 Types of credit required by different kinds of firms 38
3.5 Identifying business risk 39
3.6 Choice of remedial strategy 44
3.7 Calculating loan pricing 54
4.1 The asset and liability management process 71
4.2 Key areas of bank policy for asset and liability management 72
4.3 Organizational relationships 81
5.1 Key systems in effective human resource management 86
5.2 Major components of corporate culture 98
5.3 Citibank’s inventory of skills for a commercial loan officer 99
5.4 High-priority skills and attitudes for bank training curricula 103
5.5 Comparing existing and desired work cultures 105
6.1 Framework for phasing an institutional development program for banks 118
6.2 Strategic management of technology 121
A4.1 Internal controls 152
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.

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Director
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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. 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 (Citigroup 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 Shamshir 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
Banking is in the midst of change. As governments seek to improve economic efficiency and better allocate natural resources, policymakers are shifting economies toward openness, competition, and market discipline. Privatization is spreading, and state firms, including banks that were once highly regulated, are being given greater autonomy. To survive and prosper, bankers must jettison their bureaucratic culture and become competitive entrepreneurs, responding and adapting to a market economy.

Direct management of banking by government, too, must change. In most countries, the state needs to establish a legal, regulatory, and policy framework for sound banking. This includes strengthening prudential regulation and monitoring the quality of bank assets, earnings, accounting procedures, and management controls.

The two-volume *Banking Institutions in Developing Markets* is aimed at managers, regulators, analysts, and policymakers involved in banking in emerging market economies. The first volume, *Building Strong Management and Responding to Change*, focuses on the reform of management structures, policies, and procedures, in particular on developing:

- A strategy for competition
- An organization and effective management to support the strategy
- Management of critical financial and operating risks of banking
- A system for planning, budgeting and measuring performance
- A program for human resource management
- Strong internal controls
- Information technology.

Volume 2, *Interpreting the Financial Statements*, shows how to analyze capital adequacy, liquidity and asset quality, as well as profitability, intermediation margins and efficiency. It also discusses economies of scale in banking, peer bank analysis and trend analysis.

This introduction looks at the importance of sound bank management in market economies, the preconditions for such management in banks, the characteristics of sound management and provides an overview of institutional development in key banking functions.

**The Importance of Management**

Traditionally, banks in developing economies have been undermanaged in comparison with industrial firms. A World Bank report on Latin America, for example, showed that until recently banks generally existed as conduits for financing bank owners’ projects, rather than as independent profit centers. Moreover, because of large reserve requirements, directed credit programs and other government interventions, the “open disclosure of the financial soundness of institutions has been rare in the region” (Morris 1990, p. 36).

Financial liberalization, widened competition and diversification expose banks to new risks and challenges. Without new ways of managing the business, banks, not just in developing but also developed financial markets, can be thrown into crisis. Witness the near-collapse of the savings and loan industry and commercial bank failures in the United States in the late 1980s. One reason for the crisis was the failure of bank management to act effectively and prudently in a deregulated environment; another was the failure of federal overseers to tighten prudential regulation and enhance supervision (Bryan 1988).

If no economic crisis or regulatory change challenges them, undermanaged banks anywhere can be (or, at least, appear to be) profitable and financially sound. In developing financial markets, such undermanagement is not an option. Banks there are increasingly subject to tighter prudential regulation, strengthened supervision and more rigorous accounting standards which expose weaknesses. In many such countries, banks are insol-
vent. Some are engaged in financial restructuring and management strengthening to prevent their relapse into insolvency. In transitional socialist economies, banks are being asked to help enforce financial discipline in the corporate sector by making independent lending decisions based on risk evaluation and to restructure enterprises. In countries where there is heavy government direction in credit allocation, interest rate levels and bank management, banks will have weak risk and business management practices. In many countries, the loan portfolios of banks are also of poor quality—partly because of dodgy lending policies but also because of volatility and distress in the real economy, as well as government intervention in lending.

The Preconditions for Sound Bank Management

In a competitive market, banks need autonomy to define an operating role and strategy and to carry out lending and management independently and professionally. While theoretically amenable to governance by law, contract or formal agreement, in practice, autonomy is largely determined by ownership.

Autonomy is, essentially, the freedom to hire and compensate staff based on market conditions, to undertake expenditures based on objectives for financial performance and more important, to make loans based on an evaluation of risk and efficiency. The autonomy of a bank can be compromised whether it is state owned (which often makes it an instrument of social and political goals) or privately owned (when it may be used to mobilize financing for related entities). While the abuses of private owners are being brought under control, regulators find it difficult to discipline state-owned banks. Prudential regulation can hold privately-owned banks to arm’s-length dealings with customers, but such rigor is difficult, if not impossible, with state-owned banks.

Some countries have tried to manage state-owned banks at arm’s length by laying down standards of financial performance but these measures usually have been insufficient to overcome state interference. Many state banks are becoming hybrids, which seek to be competitive and viable while continuing to finance government programs and loss-making public-sector companies. Increasingly, it is these hybrids that need to be managed with transparency, particularly during transition to a market economy which is taking place in Eastern Europe and the former USSR.

No country has chosen yet to designate a few institutions to conduct mainly non-commercial state-directed banking business. This should now be seriously considered by some countries. And techniques, such as balance sheet segregation, should be used to ensure transparency of non-commercial risks in hybrid banking institutions.

Autonomy can be evaluated through assessing a bank’s policies on lending, financial management, and personnel and its compliance with these policies; the objectives for institutional performance and the way they are established and evaluated; and the extent of government-directed credit programs and their effect on the bank. The composition, role and objectives of the board of directors also provide good indicators of autonomy. And lastly, and perhaps most importantly, it is critical to evaluate the way in which presidential appointments are made.

Corporate Governance

Proper conduct, control, and professional management should mean that banks are prudently run and meet regulatory standards and laws. External auditors and bank supervisors may verify that a bank comes up to regulatory scratch but owners and directors are responsible for running it.

The Primacy of the Board of Directors

Bank directors should normally:

- Hire and fire executive managers
- Approve corporate plans and budgets
- Monitor quarterly performance and advise management
- Approve large loans or exceptions to bank lending policy
- Approve major investments, asset sales, and compensation programs
- Avoid self-serving practices and preferential transactions with insiders
- Establish an Audit Committee to review financial statements and maintain internal controls
- Set corporate policy on finance, credit, and personnel.

A political board, an aggressive or abusive board, even no board at all, are frequent deficiencies in financial institutions. The composition, role, responsibility and accountability of the board influence bank behavior. A study has shown that of all bank failures in the United States, 60 percent had weaknesses in their boards, including lack of
banking knowledge, as well as uninformed (or passive) board supervision (U.S. Office of the Comptroller of the Currency 1988).

Bank boards differ by country. In the United States, directors, who have a fiduciary responsibility to depositors, are legally liable for any legal infringements of law or wrongdoing. In some countries, such as Switzerland, Germany, and Portugal, bank management boards play a direct role in corporate affairs; they approve major loans and often have responsibility for specific banking functions.

Some countries that are shifting to market economies have been moving boards of state-owned enterprises toward greater autonomy and professionalism, but few governments have relinquished ministerial representation on the board. Nor do many permit the board to hire (or fire) the chief executive or allow it to exercise fully its authority without approval.

Policymaking

In developing markets, bank policy is often formulated by the monetary authorities. In some banks that were once colonial subsidiaries of Western institutions, inherited bank policies are often obsolete bearing little relevance to the business activities actually being conducted. In some smaller banks, run by personalized management, there are no formal policies. And in socialist economies, bank policy is usually synonymous with government policy. Formulating bank policy, particularly in the crucial areas of credit and finance, should be a priority for banks in all developing financial markets.

Developing and implementing policy integrates organizational needs, regulations, laws and management philosophy. It fosters the development of a corporate culture. It provides for continuity of action and is a yardstick for performance, as well as the basis for internal and external audit.

The need for policies grows with expansion, decentralization and autonomy. Bank policies normally cover major functions: credit and lending, investments in securities and subsidiaries, major capital expenditures, personnel, internal controls and financial management. Policies are drafted by senior managers and staff from the areas to which the policies apply. Policy development is frequently based on industry practice, local custom and input from executives and the board of directors. A bank may also seek help, from outside sources: to be credible and relevant, however, such imports must be tailored to the bank's needs. Normally, the board of directors approves new policies.

The Characteristics of Sound Management

Management is often referred to as an art, elusive and personalized in its practice. Bank analysts often mistake distinguished credentials and personalities of senior managers for excellent management. Such things are important, but are not reliable indicators of leadership and vision, quality of management, ability to control risk, staff excellence—nor of prospects for financial performance.

Management systems, particularly their formality and decentralization, depend on many factors, including the size and structure of the business, the style of senior management, as well as competition, and economic regulation. As organizations expand and diversify, they need to rely more on impersonal systems of management.

Although a precise definition of good management is difficult to formulate, observable aspects exist and proficiency in their execution can be evaluated. Success in any business requires leadership and competency in strategic analysis, planning, policymaking and in the management functions intrinsic to the business. Banks are no exception.

Institutional Development of the Key Banking Functions

Institutional development of a bank undergoing restructuring or a marked change begins with diagnostic studies, which focus on the bank's strategy and organizational structure, as well as credit risk management, financial management, planning and budgeting and performance reviews, human resource management, compliance and control systems and information technology. Diagnostic studies undertaken as part of World Bank programs have found that banks in developing markets share certain deficiencies—lack of a strategic plan, ineffective organizational structure, inefficient workflows, cumbersome procedures, lack of written policies, inadequate management information and lack of credit and financial skills. The functional areas that most often need strengthening are:

Planning

The planners' motto is "If you don't know where you're going, you'll end up somewhere else." Competition stimulates the need for internal and exter-
nal analyses, the establishment of performance objectives and the strategies and plans to carry them out. Good planning encompasses budgeting, reviews, and incentives. In budgeting, plans are quantified according to anticipated revenues and expenses; a pro forma balance sheet and income statement for the next year will reflect a financial structure and earnings performance commensurate with institutional objectives. Management incentives may be linked later to budget achievement.

In the 1980s, insolvent banks in some countries were restructured, which involved the removal of bad assets, recapitalization and a change of management. Many restructured banks were engaged in financing the unbankable—loss-making public sector enterprises, self-lending, speculation, political loans and social programs. In well-serviced competitive markets, such banks will find it tough to find a new role that leads to an acceptable share of the market, adequate earnings and a sound financial structure. Often, they do not have the management or service quality to attract creditworthy borrowers or voluntary depositors. Some may need to be closed or merged. For others, a critical, realistic and comprehensive strategic and financial plan is needed. Increasingly, restructured banks are being privatized.

Credit Risk Management

In response to their greater responsibility for managing credit risk, some banks have begun to develop credit risk management by devising credit policies, procedures and analytical capabilities. These efforts usually need to be expanded into full credit risk management—including origination, approval, monitoring and problem loan management—tailored to the needs of each bank. Attention should be devoted to explicit and effective internal controls, assessing and dealing with credit risk, and classifying, monitoring and following up on late payments and arrears. This aspect of institutional development should begin as soon as possible because of the critical nature of the credit function.

Financial Management

As interest rates are liberalized, financial markets broadened with new instruments, and banks permitted to lend, deposit or trade foreign exchange, assets and liabilities of banks become more diversified and interest-sensitive, both in maturity structure and rate volatility. It is therefore essential to build systems and skills in liquidity management, asset and liability management and foreign exchange management.

Human Resource Management

Banking is a highly competitive service industry, and depends heavily on well-qualified, highly motivated people. Personnel policies and procedures are vital to the development and continuity of high-quality staff. Professional managers may ensure that traditional personnel procedures are implemented (for example, job descriptions, recruitment, training and professional development, performance appraisals) but, in developing markets, fostering an effective and successful banking culture goes well beyond that. In commercial banking, managing people must be a fundamental line management responsibility if high-quality staff is to be developed and maintained. Moreover, attitudes and behavior often need to change to increase efficiency and institutional capacity.

The organizational structure of a bank is closely linked to its business strategy and its degree of decentralized decisionmaking. The structure should be designed to define lines of accountability, authority and responsibility and limit duplication of effort (see box 1.1 for a simple bank organizational structure).

Compliance and Control Systems

To ensure that a bank operates in a sound and safe manner, the directors in consultation with management and specialized staff, implement control systems to ensure that employees perform their duties in accordance with bank policy and procedures, as well as the law.

Control systems may include auditing, internal controls, asset quality reviews, establishment and review of financial risk management and compliance management.

Information Technology

Money has been called "information in motion" and information technology has become an integral part of service delivery. It also provides important support for bank management. Banks must carefully consider hardware and software selection, phasing of programs, and its ability to absorb the technology. A misconception prevalent in developing markets is that automation will modernize bank management. In fact, only banks with sound management will be able to define the tech-
nology needed. Technology is a tool, though a critical one. It is a lagging factor in institutional development.

**Conclusion**

Internationalization of financial services has been spurred by the geographic spread of major banks, cross-border lending, technology, and investment in capital market instruments. It has also been expedited by the adoption by major financial centers of certain common banking regulations through the Basle Agreement on the International Convergence of Capital Measurement and Capital Standards, the International Accounting Standard 30 on Bank Accounting and Disclosure Standards and "The Audit of Commercial Banks," issued by the International Auditing Practices Committee in February 1990. The global transfer of banking techniques and technology touches banks in Latin America, Asia, Africa, Eastern Europe and the former USSR. Increasingly, these banks need to strive not only for viability but also for excellence and competitiveness if they are to survive and prosper. What is banking excellence? A panel of independent observers have listed 10 critical characteristics (Davis 1985):

- An open culture and extensive vertical and horizontal communication.
- Strong shared values.
- Profit performance as a value.
- A customer-driven business orientation.
- A willingness to invest in new products.
- Strong and consistent leadership and a strong sense of direction.
- Commitment to recruit the best people.
- Investment in training and career development.
- A client or product information system permitting assessment of product and client profitability.
- Strong credit risk management.
This book aims to offer some tools and concepts that will lead banks in developing financial markets towards such excellence. It draws on best banking practices in many financial systems. While many references are drawn from the U.S., the internationalization of financial services has led to the dissemination of these practices throughout both developed and developing markets worldwide.

Notes

1. Some observers have referred to these as schizoid institutions with the dual but incompatible priorities of serving the state and maximizing efficiency.
2. Planning

The banking industry was a latecomer to the field of planning. Banks began planning in the 1960s, a period marked by a series of changes that added complexity and competitive pressures to the industry. First, banking began to expand internationally, leading to greater global competition. Second, new financial markets transformed the traditional patterns of funding for both banks and corporations. Third, where regulations permitted, banks began to diversify product and service lines. Fourth, nonbanks began to offer financial services, adding still more competition. Fifth, computer technology began to permeate the banking industry.1

The trends that pushed banks toward planning in the 1960s are prevalent in many developing financial markets today and are likely to intensify as more countries begin to adopt financial liberalization. Banks in these markets must develop effective competitive strategies, and plans to implement them, if they are to perform an efficient financial intermediation function and retain or attain financial viability. This chapter provides banks with planning concepts and tools. It covers both the content and the process of planning in banking institutions, providing practical guidelines rather than theoretical discussion.

Planning Defined

All levels of management and staff can use an operational plan to reach a common understanding of institutional objectives, the strategies and tactics for achieving them, and the quantity, quality, and allocation of resources required for that purpose.2 The process of formulating the plan is as important as the plan itself: it provides a framework for establishing both qualitative and quantitative objectives for the bank as a whole and for each of its parts. Simply put, the plan establishes a vision of the bank’s future. Thus, a plan is particularly important when banks are facing a new regulatory and competitive environment, or when they have been restructured and are embarking on a new course. A plan establishes the parameters of well-focused thinking about competition, markets, products and profitability, support needs and controls, and human and technological resources. It also establishes an objective framework for compensation and incentive systems.

The operational plan describes not only the “what” of an institution—its general purpose, specific goals, and present condition—but also the “how”: it defines clearly and precisely how the institution will achieve its objectives and who is responsible for achieving them. For instance, the plan defines a bank’s markets and describes how it will approach those markets; it specifies how a bank will strengthen management processes, technology, and personnel; and it establishes a set of financial outcomes for the qualitative plan that are ultimately expressed in a pro forma balance sheet and profit and loss (income) statement.

By definition, operational planning is comprehensive. At the very least, it should address four basic organizational objectives:

• To define the institutional vision.
• To identify target markets.
• To identify support requirements—human resources, services, products, and technology.
• To create a management control process based on a budget and a financial plan.

To fulfill its multipurpose role, the operational plan must encompass all aspects of banking operations and management. During the planning process, six management areas, discussed in great detail later, are the subject of a comprehensive analysis of the current and future shape of a banking institution:

• Risk asset management—Loans, investment portfolio, and off-balance-sheet risk.
• Liability management—Liquidity, deposit generation, customer service, and funding.
• Fee income management—Operations and processing services; technical and advisory services.
Building Strong Management and Responding to Change

- **Productivity**—Operational efficiency, information technology, staff productivity, and financial performance.
- **Control functions**—Internal audit, management information systems, and loan administration.
- **Personnel management**—Staff training, recruitment, and retention; incentives, rotation, career development, and organizational structure.

The Special Case of Banks in Developing Financial Markets

The trends that transformed the banking industry in industrialized countries are also beginning to influence the banking systems of developing countries, Eastern Europe, and the former USSR. An industry that until quite recently operated as a relatively homogeneous cartel has been forced by deregulation and technological change to operate in a much more competitive environment. Under these changing conditions, planning becomes a critical necessity.

Moreover, insolvency has led to the financial restructuring of a growing number of financial institutions worldwide. Restructured institutions have a particularly compelling need for operational planning in order to build an institutional framework that will both foster their financial viability and protect them from renewed financial deterioration. Operational plans serve these pressing needs by providing an integrated and comprehensive assessment of a bank, including its institutional strengths and weaknesses, financial structure, and earnings performance. They translate the assessment into corrective action and transform the focus of a bank’s staff from activities to results.

Compared with commercial banks in industrial economies, banks in most developing markets often bear a proportionally greater range of responsibilities and costs in relation to their resources. They have more limited access to domestic and foreign capital and are expected to perform more extensive and diverse business activities. Three specific limitations are worth mentioning at the outset because they influence the planning capabilities of a bank.

Though governments have been reducing the scope and number of selective credit programs, banking institutions in some developing markets continue to act as conduits for allocating credit to certain sectors of the economy. They may also serve as agencies for providing noncommercial assistance, such as extension or technical services, quasiventure capital, and enterprise restructuring. Banks are often structurally and technically ill-equipped for such activities—activities that may also run counter to sound banking practices. A plan should highlight real or potential problem areas and provide a strategy for enabling the bank to interact with the government’s financial and regulatory authorities.

Financial Policy Adjustments

Adjustments in a government’s financial and monetary policies, such as additional reserve requirements, exchange and interest-rate movements, and credit controls, may inadvertently have adverse effects on the financial position of commercial banks. Many countries place a heavy burden of implicit and explicit taxation on financial intermediation (Honohan and Chamley 1990). In most instances the introduction and effects of such measures are beyond the control of the bank. An operational plan should sensitize the bank to the technical requirements and cost implications inherent in evolving macroeconomic and sectorial policies.

Institutional Role

A bank’s role in a financial market determines its financial viability and institutional efficiency. In the economies of many developing countries, state-owned institutions carry out a dual role, serving as both development agency and commercial bank. While this duality should eventually be curtailed in the interest of financial viability, changing a bank’s role to a purely commercial one is not immediately possible in some countries. In these hybrid institutions, developmental activities should be carried out with transparency and professional rigor. Such institutions must pursue specific measures to preserve their solvency and competitive position. The operational plan provides an excellent vehicle for defining a bank’s role and specifying the necessary measures to preserve solvency, efficiency, and competitive strength.

An evaluation of the financial condition and creditworthiness of borrowers in the bank’s major markets should inform the plan. Banks in some developing countries have a narrow range of sectors into which they can lend, which prevents them from diversifying their risks adequately. Because banks tend to reflect the markets they serve, the credit aspects of market selection are critical to
Planning solvency and should be specified as part of the planning process.

Application of the Model Planning System

A bank's planning system must conform to the bank's circumstances, especially its organizational structure, degree of managerial decentralization, geographic coverage, complexity of product line, and management style. This chapter has been adapted from an actual planning document prepared for a U.S. commercial bank and should thus be viewed merely as a starting point from which banks in developing financial markets can structure planning systems relevant to their own situation. Nonetheless, bank planning systems should encompass the basic elements covered in this chapter:

- A corporate strategy.
- A set of financial objectives ultimately expressed in a pro forma balance sheet and income statement.
- Strategic objectives and tactical plans for managing assets, liabilities, fee income, human resources, productivity, and controls.
- Detailed action plans for major initiatives.
- A budget.
- A human resources plan.
- A systems and technology plan that supports the bank's strategy.

The planning system presented here is appropriate for a multidivisional, diversified commercial bank, where division management carries out a major share of the planning activity. It is also appropriate for a holding company, in which subsidiaries' plans are merged into a comprehensive institutional plan. To adapt this format, a smaller, less diversified, or a highly centralized institution would substitute a corporate-level plan for divisional plans, using the same planning categories. The institution would develop the corporate plan on the basis of recommendations from the relevant line and staff managers, but would not require an independent planning effort by these staff.

Types of Planning

Planning is a multilevel endeavor. On one level, strategic planning involves ideas, concepts, objectives, and methods. On another level, tactical planning involves defining actions and tasks to accomplish the strategy. And on a third level, financial planning and budgeting translates the goals, strategies, and tasks developed in the strategic and tactical plans into financial operating targets. Although the operational planning discussed in this chapter is heavily task-oriented, it must incorporate and support the institution's overall strategic vision. For banks in developing countries that are engaged in institution building, this type of a planning exercise is particularly appropriate and is an essential complement to financial restructuring. In such banks a strategic vision is urgent, but no more urgent than the marketing programs, credit-risk management systems, organizational structures, human resources, policies, procedures, and controls they require to realize the vision. An operational plan provides the necessary framework for defining and coordinating these elements of institution building.

The nature of a bank's planning process depends on its situation. The process in a bank in a rapidly changing market, or one about to diversify into new activities, will differ from the process in a bank that has a defined strategy and operates successfully under stable market conditions. In developing markets, banks would benefit from a planning process that incorporates the three types of planning.

Strategic Planning

Strategic planning formulates broad objectives and goals; it creates a vision for the institution. The process establishes a conceptual framework for making key decisions that affect the organization's future markets, products, organization, profitability, and risk profile. It focuses on the long term and on creative analysis and problem-solving: it avoids excessive detail. A strategy answers Who? What? and How? Who will the customers be? What products and services will be delivered? How will the bank satisfy market needs? (Annex A provides a checklist of tasks for testing and reviewing the strategic planning system. Further references to this annex are noted where appropriate elsewhere in the text.)

In a static operating environment, strategic planning might improve performance only marginally and thus be considered a nonessential activity. In a rapidly changing environment, strategic planning is essential for survival, especially when the competitive challenge arises after a long period of relatively stable operating conditions. Strategic planning is equally important when an institution wants to diversify its operations into either related or nontraditional business activities, when it wants
to change its competitive position or financial profile, or when it must redefine its core business. Planning is also essential for restructured banks that expect to change the nature of their markets, operations, and management. In turbulent times, strategic planning is indispensable, providing a systematic management process for considering the future effects of present institutional decisions, dealing with the uncertainties of the risk-management process, and monitoring external sources of change.

**Tactical Planning**

Tactical planning is task-oriented. It defines short-term objectives that support the strategic plan and describes how each major functional area of the bank will achieve them. Tactical planning is ultimately expressed in task-specific action plans that contain milestones or dates for completing certain aspects of the project. (Action plans are discussed in detail later in this chapter.)

**Financial Planning and Budgeting**

Financial planning and budgeting creates a set of performance expectations for managing a bank. Banks may also use performance expectations as a basis for compensation and incentive plans. Proposed capital expenditures and new programs and projects should be approved and incorporated into the budget. Ultimately, the budgeting component of the planning process creates goals for the balance sheet and income statement that, in turn, provide a basis for operational control in the coming year.

The budgeting component also plays an integral role in risk management because it gives each unit a set of operating parameters that can be monitored monthly. Deviations from these budgetary parameters serve as an early warning signal that the actual risk profile of the bank may not equal the desired risk profile in the budget year.

Banks may develop budgets from the top down or from the bottom up, depending on the participants in the process and the nature of their participation. In a top-down process, senior management sets the financial and operating targets for the bank at the outset. Individual units then submit a budget to indicate how they will achieve these targets. This approach is particularly effective when an institution must respond quickly to a changing environment or is faced with the need to restructure its operations in order to maintain profitability.

In a bottom-up process, individual units submit their plans for the coming year for review by senior management. They prepare these plans under broad guidelines developed by senior management, but the final budget is shaped by negotiations between the unit managers and senior management. This approach is more participative than the top-down arrangement in setting ultimate budget goals. To be effective, senior management must ensure that all units are treated fairly in the negotiating process, or else risk undermining the morale and cooperation of management during the budget year.

Budgets are monitored through monthly or quarterly reports and reviews in which actual results are compared with the budget. This process entails a variance analysis for both the bank overall and its individual units. It defines when managers are required to submit written reports to explain "variances" from budgetary targets and the corrective actions that managers should take toward achieving the goals for the current year.

**Developing a Strategy**

Nowhere are the demands of increased competition and the need for operational efficiency and soundness more acute than in developing financial markets. In some countries, banks are expected to exert financial discipline on enterprises and to participate in their restructuring and privatization. Banks often operate under unstable and unpredictable market conditions; many do not have a well-defined, implementable strategy or a comprehensive operational and financial plan, though they often have a list of activities that they hope to pursue. Given the pressing and multiple demands confronting them, banks in developing markets would greatly benefit from both a strategy and a system of comprehensive operational planning. This section of the chapter deals exclusively with strategy. The following two major sections discuss the tactical and budgetary aspects of comprehensive operational planning.

Competition is widely considered the focal point for formulating strategy. As Michael Porter, an authority on strategic planning, has noted, "The essence of strategy formulation is coping with competition" (Porter 1979). The basis for developing a strategy is thus an understanding of the competitive forces, their underlying causes, and the crucial strengths and weakness of a bank relative to those underlying causes.

Banks in some developing financial markets
benefit from a series of preferences and market practices that confer competitive advantage: preferred government and government-related funding; branching and entry restrictions on foreign competitors; and required domiciliation of public enterprise deposits and loans with specific, usually state-owned, banks. These factors tend to fade as financial liberalization progresses. As the competitive advantages conferred by regulation decline, banks must develop others.

The underlying causes of competitive advantage for commercial banks are both global and market-specific. Box 2.1 highlights critical sources of competitive strength for major international banks (adapted from Walter 1988), indicators that apply increasingly to banks in developing countries.

Developing a strategy also entails decisions about which markets should be targeted or cultivated and which markets should be avoided. Analyzing the market structure of various alternatives facilitates identifying both a feasible and a potentially profitable strategy. The competitive market structure criteria developed by Porter for enterprises can be applied to discrete banking markets (box 2.2) providing another useful analytical dimension as the bank develops its strategy (Porter 1979).

Restructured banks tend to identify identical high-priority market segments—prime corporate borrowers and wealthy individuals. This phenomenon is evident in markets as different as those of Hungary and Ghana. But the current and potential market size of these customer segments usually will not support the entire banking industry, and in many cases certain institutions already dominate the markets. Strategies that have not been based on a rigorous analysis of competitive factors are unlikely to provide a basis for a successful, financially viable, and sustainable bank. Understanding the composition of the market for banking services and the competition for those markets provides a foundation for successful strategies.

In developing countries, the market for banking services is often not integrated; competition tends to be fragmented into discrete market segments. For example, institutions or groups of institutions may serve the household market almost exclusively, or the market of state-owned or privately owned corporations, or the market of foreign, joint-venture, or multinational corporations. As these markets liberalize, develop, and deepen, competition is likely to intensify across segments. Thus, a fundamental strategic issue for financial

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### Box 2.1 Sources of Competitive Strength

**Capital adequacy**—As regulators and financial markets increase their emphasis on capital, inadequate capital will constrain funding, expansion, risk taking, and nontraditional banking activities, such as securities underwriting and mergers and acquisitions.

**Asset quality**—Banks whose asset quality is poor are unable to compete from a position of financial strength. Financial and human resources are diverted to weak borrowers. Staff talent and institutional energies are diverted to portfolio restructuring and problem-loan management.

**Human resources**—Entrepreneurial qualities and good judgment permit a bank to identify and exploit market opportunities. As the eminent German banker Wilfried Guth has noted, “In today’s evolving competitive environment human capital can be viewed as a financial institution’s most important asset, and many of the critical capabilities for exploiting competitive opportunities depend directly on the quality of human resources” (cited in Walter 1988, p.81).

**Information**—Banking is an information-intensive business. The capacity to collect and use information—particularly credit information—is one of a bank’s most valuable contributions to the economy. The collection and evaluation of information is critical to lending and credit-related activities, as well as to the development of products and services, some of which, such as financial advisory services, must have high-quality information to be of value to bank customers.

**Financial innovation**—Innovation is a function of human capital, technology, market conditions, regulation, and the institutional culture of a bank. In developing financial markets, innovation is often inhibited by lack of competition and excessive regulation of financial instruments.

**Technology**—The appropriateness of technology and the skill with which it is applied to the bank’s goals condition the quality of the bank’s services, decisionmaking, and internal control.

**Franchise**—Franchise is an intangible but critical asset. Its value is determined by the market’s perception of the bank’s cumulative track record in service, competence, and competitiveness. Franchise value may also derive from a bank’s branch network or traditional customer base.

Source: Adapted from Walter 1988.
Building Strong Management and Responding to Change

institutions in such markets is the degree of specialization they should maintain.

According to current trends, it appears that many developing financial markets are evolving into pluralistic systems, encompassing large diversified banks and small, narrowly focused, specialized ones. There is a role for both. Their success depends not on a particular institutional structure, but on a strategy for meeting the financial needs of a viable market and on the policies, actions, and management systems necessary to implement the strategy. Many successful banks have a narrowly focused market strategy, such as one that concentrates on wholesale corporate banking and provides high value-added services. Similarly, many successful banks serve a broader array of markets and strive to be a low-cost provider of services.

One major constraint to broad diversification in developing markets is the scarcity of both technical and management skills. Thus, strategy should be commensurate with institutional capacity.

Formulating strategy involves identifying promising customer segments and lines of business and assessing competitive strengths and weaknesses, as discussed earlier. Banks in developing financial markets operate under difficult conditions and face several constraints. Loan-portfolio weaknesses, shortages of skilled staff, volatile economic conditions, a lack of information capital, government intervention in the financial sector, and funding constraints—all conspire to limit a bank's strategic options. Given the multiple pressures on banks in developing financial markets and the fragmented nature of the competition facing them, these banks are unlikely to use competition as the unique, or even primary, basis for their market strategy. However, banks must consider the competitive elements as they develop their strategy, and make them an increasingly important focal point for strategic management as these financial markets develop.

Banks in developing financial markets must understand and address the radical changes in their customer base. In Hungary, for example, about a third of the 43,000 registered businesses in the country at the end of 1990 sprang up in that year alone. Developing a strategy and a methodology for serving new companies effectively is crucial to a bank's growth and profitability, as well as to an economy's transformation and stability. In addition to lending to newly formed companies from which the dynamic and attractive banking markets of tomorrow are likely to evolve, banks—particularly state-owned banks in transitional socialist economies—must identify their role in the reform of enterprises and in the financing of poorly performing public enterprises. As yet, very few banks or governments have been entirely clear about this point.

A bank must focus on the credit-risk profile of prospective borrowers as it develops its strategies. This focus is particularly important for restructured banks that must redirect their lending strategy to new markets in order to maintain solvency. As indicated in chapter 3, "Managing Credit Risk," selecting creditworthy target markets is a critical precondition for a healthy loan portfolio.

The Operational Planning Process

Planning can be approached in various ways. The process described in this chapter is participative, assuming a decentralized management structure in which most of the actual planning is carried out by line managers at the divisional and unit levels. In this process, the chief executive officer must crystallize a corporate vision, set objectives, guide the development of the plan, and review performance against the plan. Without the active involve-

Box 2.2 Competitive Market Structure

Market power of suppliers—Funds and staff are two critical resources for a bank. Remuneration required by funding sources and funding constraints, as well as the remuneration of labor and skills shortages, significantly condition a bank's operations.

Market power of clients—Certain client groups have substantially more negotiating power than others: multinationals, individuals with high net worth, and top-ranking corporate enterprises. On the other hand, these markets tend to offer attractive risk and return prospects.

Availability of product substitutes—As financial innovation takes place, classic commercial-banking products are displaced by nonbank products. The availability of these substitutes affects the competitive market structure.

Competing institutions—Current and potential competitors.

Pricing trends—The costs and revenues associated with new markets and new products must be analyzed and compared with current profit levels and profitability objectives.

Source: Adapted from Porter 1979.
ment of the CEO, planning deteriorates into mere administrative routine.

Once the bank establishes its strategic and financial objectives, divisional management must translate them into specific market priorities relative to their divisional activities. At the corporate level, planning begins with a definition of the bank's mission and objectives. These elements are then linked to opportunities and the resources available to support them. At the divisional level, objectives, strategies, and market priorities are evaluated and compared with corporate strategies. The corporate and divisional plans are then harmonized into an overall operational plan for the bank.

Planning departments and consultants have a role to play—the departments, to analyze, structure, and manage the planning process, and the consultants, to provide technical assistance as appropriate as the bank undertakes the planning process for the first time, wishes to revise its planning process, or wishes to modify its strategy. Of course, banks can plan without formal planning departments or consultants; however, they cannot plan meaningfully without the active participation of management. It cannot be emphasized too strongly: planning is a line management responsibility.

The planning process consists of five phases:

- **Input and analysis**—Gathering and assessing information.
- **Decisions**—Defining corporate priorities and formulating divisional programs.
- **Documentation**—Committing the plan to paper; developing divisional or departmental strategies, action plans, and budgets.
- **Plan review**—Reviewing and reaching agreement with the CEO and senior management on plan documents; presenting a summary of the plan to the board of directors.
- **Performance review**—Monitoring performance against the plan.

The viability of the plan depends on a critical internal process—the cycle through which each division, department, or operational unit proceeds in developing its contribution to the operational plan. Although the structure of the planning process suggests that the process is linear, it is in fact iterative, with many reviews and revisions taking place as a bank's plan is put together (see box 2.3).

### The Input and Analysis Phase

The first phase consists of an economic and market analysis and an internal diagnosis. Data are gathered and analyzed to isolate the factors that determine the organization's prospects and its ability to compete. By identifying both long- and short-term profit opportunities and risks, such analyses form the basis for the operational plan. The analyses, usually undertaken or commissioned by a planning department, should cover the following areas:

- Economic, regulatory, political, and social factors.
- Prospects for growth in current and potential markets.
- Prospects for competition in current and potential markets.
- Financial prospects in key economic and industrial sectors.
- The strengths and weaknesses of the bank's current operations.

**The Mission Statement.** Operational plans normally begin with a statement of the institution's basic purpose—a "mission statement." All too frequently such statements are merely perfunctory generalities, wasting an opportunity to have management and staff focus their attention on defining the nature and purpose of the bank. The mission statement provides guidance for banks entering new fields of activity and diversifying into non-traditional activities, such as providing venture capital, equity investments, long-term lending, corporate finance, underwriting, corporate restructuring, or trade finance. Restructured banks must focus on their business purpose and future role. For banks in developing financial markets, the plan should contain a brief passage that describes the specific economic and financial policies of the government that affect the bank and how the bank views its role in the financial markets. The plan should clearly define operational lending and borrowing restrictions, as well as the bank's authority to conduct various types of business.

**The Statement of Corporate Objectives.** The mission statement is followed by a statement of corporate objectives, a series of directives from corporate management that flow down through each subordinate level of the organization. The statement of objectives encompasses the entire institution, thereby providing the overall direction and decision-making framework for the operational planning effort. The statement outlines broad financial objectives, identifies the bank's major markets, and specifies how the bank will operate in those markets.

Corporate financial objectives for a given year would consist of at least the following indicators, with the appropriate degree of precision (the specific figures are for illustrative purposes only):

- Growth of net income: 10 percent
Box 2.3 Planning and Budgeting Model

Planning and Budgeting System

Corporate mission → Business focus

Environmental analyses → Business/financial analyses → Internal assessment → Business plans → Corporate strategies

Budget guidelines → Unit budgets → Budget consolidation/revision → Monitor and update → Target Results

- Identify and achieve business goals
- Develop and allocate resources efficiently to meet goals
- Correct weaknesses/build strengths
- Overcome challenges/seize opportunities
- Create sustainable competitive advantage
- Provide criteria for monitoring, measuring, and evaluating performance

Source: Booz-Allen & Hamilton.

- Return on assets: 1 percent
- Return on equity: 15 percent
- Growth of core deposits: 15 percent
- Growth of assets: 4 percent
- Growth of fee income: 15 percent

Strategies to achieve these objectives might include shifting the institutional emphasis from international lending to consumer finance, expanding trade finance and lending to small and medium-size enterprises, improving asset quality, focusing more heavily on service quality, shifting to fee-based services, and offering new financial services and products.

Financial performance indicators deserve a special note of caution. Capital markets in highly competitive industrial countries such as the United States have tended to exert consistent pressure on market participants to meet financial performance criteria. Banks in developing financial markets are also beginning to measure their performance against short-term financial performance indicators. Financial objectives for earnings growth, return on assets and equity, and internal capital generation are useful management tools, but they must be used with discretion; straining to reach such objectives in the near term by ignoring fundamental operating principles—for example, weakening the bank’s risk-acceptance criteria—should be avoided. The effects of such pressures on U.S. industry have been amply covered in the financial literature, which argues that long-term viability and competitiveness are impaired by an overemphasis on short-term financial results. Both banks and industry must strike a balance between meeting financial targets and achieving long-term viability. In fact, long-term financial viability itself can and should be an explicit bank objective.11

A PARALLEL EXERCISE: LONG-RANGE PLANNING. A bank’s strategy as embodied in the mission statement and statement of corporate objectives is frequently guided by a separate strategic planning exercise, either ongoing or special-purpose. Conducted independently of annual operational planning, such strategic studies are often a response to a specific fundamental challenge, issue, or shift—current or prospective—in the bank’s operating
Planning

Planning decisions are made at the divisional (or branch) level on the basis of corporate strategic directives that flow from the top down. In the first stage of decisionmaking, the division (or branch) translates the corporate goals into performance objectives, and develops its own time- and task-specific strategies for achieving them.

Performance Objectives. Managers at different levels should set their respective performance objectives according to a consensus of critical indicators, such as earnings, loan volume, revenues, expenses, credit losses, and so on. Performance objectives are specific, quantified, and time bounded, as in the following example:

Objective: To reduce credit losses.
Specifically: To reduce delinquent payments from a government-owned steel corporation and from private companies W, Y, and Z.
Quantity: From 20 percent of loans outstanding to 8 percent.
Timeframe: During the plan year.

Strategies. Task- and time-specific strategies delineate the process of achieving performance objectives. Developing these strategies involves decisions about the acquisition, use, and disposition of resources for carrying out specific functions and activities. These might include penetrating new markets, developing new products, and marketing products and services. The strategy must:

- Indicate “where we are,” “where we want to be,” and “how to get there.”
- Maintain consistency with the corporate top-down directives.
- Take into account both obstacles and opportunities.

The central steps in formulating these strategies are to identify priority markets, delineate the factors that will ensure success in those markets, and describe how the products, services, human resources, and technology to ensure success in the target markets can be marshaled. Target markets were traditionally defined in such broad terms as retail, corporate, or international. Increasingly, banks are subdividing these broad markets into more narrowly defined groups, a technique known as “market segmentation” (see Channon 1986). Segmentation can be carried out in various ways. The following is an example of some of the segments of the corporate and the retail markets:

<table>
<thead>
<tr>
<th>Corporate</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales volume</td>
<td>Wealthy individuals</td>
</tr>
<tr>
<td>Geographic location</td>
<td>Students</td>
</tr>
<tr>
<td>Industry sector</td>
<td>Professionals</td>
</tr>
<tr>
<td>Number of employees</td>
<td>Senior citizens</td>
</tr>
</tbody>
</table>

Strategies are formulated at different levels of the organization. A corporate strategy is concerned with the broad approach for positioning a bank to meet its operational and profitability objectives year after year. Divisional strategy is concerned with specific market focus (for lending and deposit-taking divisions), product mix, key personnel needs, the distribution of activities, and products and delivery. Strategies at both levels should address the six major management categories:

- Risk (earning) assets
- Liabilities
- Fee income
- Productivity
- Control
- Personnel.

In the actual planning process, divisional managers rely on the objectives established by corpo-
rate management, as well as on the conclusions of their respective analyses of geographic, sectorial, and general business conditions. Decisions on strategy, action plans, and budgets are based on a composite of institutional inputs. Corporate objectives are thus translated into divisional plans (and vice versa) in an iterative process.

The Documentation Phase

The documentation phase involves committing strategies to paper, writing the divisional action plans, and preparing the budget. The logical sequence for documenting the operational plan is as follows: strategy, action plans, budgets (both capital and operating), and complete balance sheets and income statements at the bank and divisional levels. These elements are summarized below; the next major section, "Sample Plan Format and Contents," gives more detailed explanations.

- Strategy, based on the economic and policy environment, describes the fit between the market and major marketing initiatives. It answers, "Where are we, where do we want to be, and how do we get there?"
- Action plans convert strategy into implementation and results. They define what is to be done, when, who is responsible, and the intended effect of the actions on net income. Action plans must reflect the major strategic initiatives.
- Budgeting translates plans into the long-term capital expenditures, the annual revenues, and the annual expenses necessary to carry them out.
  - Capital budgets flow from action plans. Capital budgets identify the major depreciable expenditures on plant and equipment over the next year and their effects on earnings over the next five years.
  - Operating budgets cover ongoing revenues and expenses associated with action plans and activities. Operating budgets must be based on committed objectives expressed in divisional action plans.
- Balance sheets and income statements distill the financial implications of the strategies and plans and should be prepared for all profit centers and for the bank as a whole.

The Plan Review Phase

Each contribution to the operational plan is reviewed at various levels of the bank's organization, culminating in the divisional and executive management reviews. These plan reviews focus on performance during the year just completed, long-term growth objectives and strategies, the integration of business strategies with corporate objectives, and projected earnings. Once approved, the plan represents the organization's commitment to take action and achieve objectives. (Annex A provides a checklist of elements in the plan review phase.)

The Performance Review Phase. Performance reviews assess earnings, results, and progress on action plans. They should occur at least quarterly, preferably monthly. Their purpose is to keep the bank's management informed of important developments, call attention to events that might affect income and profits, update the estimate of the current year's earnings, and motivate unit managers to execute their action plans and meet their goals.

A single-page form could be designed to permit a complete update with minimum staff time.

Formal quarterly performance reviews should be scheduled at all levels of the organization. They emphasize the evaluation of actual results against the plan. When major discrepancies occur, causes and circumstance are identified, and action plans are readjusted to correct variances.

Divisional Plan Format and Contents

The sample format presented here is a divisional plan derived from a decentralized planning process. Under a centralized process, the format shown here could be used as the corporate plan itself. All divisions should use the same format and major categories. The major plan components used here represent the minimum scope of coverage for an operating plan.

Summary of Plan Components

The following are six typical components of a divisional plan:
- Business outlook
- Status of present operations
- Key financial objectives
- Divisional strategy
- Divisional support requirements
- Action plans.

The following is a short summary of the points to be covered by each plan component. After this summary, the divisional plan is discussed in relation to the six management categories—risk assets, liabilities, fee income, productivity, control, and personnel.

Business Outlook. The business outlook component summarizes key economic and financial
assumptions on which the division's plan is based:

- **Environment**—Describes how the economic, regulatory, political, and social factors expected during the plan period will affect operations. The division’s plan should seek opportunities even in the face of constraints imposed by these factors. Analyses of markets and competition provide another basis for strategic development.

- **Markets**—Identifies the actual financial needs of the various client groups and market segments. Describes who the customers are, their current and future financial and technical-service needs, the quality of services they might receive from competitors, and what would make them deal primarily with a particular bank. Evaluates the credit-risk aspects of targeted lending markets.

- **Competition**—Discusses the strengths and weaknesses of major competitors in identified target markets and their sources. Describes pricing practices for loans, deposits, and fee-based services; the introduction of new products; and the possible expansion of competitors into new markets.

**Status of Present Operations.** This component is a comprehensive statement of the current status of the business. It analyzes the nature of current operations, their relative strengths and weaknesses, and their associated risks and vulnerabilities. The criteria chosen for measuring performance should cover factors that have a significant effect on the overall corporate objectives: the quality of the loan portfolio, client services, the present market share, employee skills and productivity, corporate image, managerial capabilities, and new product development.

**Key Financial Objectives.** Banks that practice planning at the divisional level normally use profit center budgeting. Profit centers usually develop their budgets in the form of balance sheets and income statements that reflect planned business activities within the scope of their responsibilities, as well as transfer charges for the services they use or transfer credits for the services they render to other divisions. One of the most important of these transfers is the transfer charge or transfer credit for funds used or rendered. Some divisions are normally net users of funds (such as a corporate lending division), and some are net providers (such as retail banking that mobilizes savings). Using a transfer-pool mechanism, a bank attributes funds-related costs or revenues. Quite often the rate used is the bank’s marginal cost of funds, the rate at which a bank can readily borrow or lay off funds. The concept behind the marginal cost of funds is discussed in chapter 3, “Managing Credit Risk,” under the section on loan pricing. The profit center concept is discussed in chapter 4, “Financial Management.”

The financial objectives of a division at this stage of planning are broad but quantifiable financial targets; these targets are refined into detailed line items during budgeting. The elements of a division’s financial objectives will differ according to the role of the division. For example, a lending division would tend to emphasize risk assets and fee income, while certain staff divisions would tend to focus on controlling expenses and enhancing quality and efficiency. The treasury division should formulate objectives and targets both for the investment and trading portfolios managed for the bank’s account and for funding. The management of foreign-exchange exposure should be an integral part of the bank’s treasury function. Box 2.4 presents a suggested format for the division’s financial objectives:

The rows of the table format are self-explanatory. The columns are defined as follows:

- **Arrears**—The entire amount of loans on which a payment of principal or interest has been missed, as a percentage of loans outstanding.

- **Earning assets and deposits**—A target related to corporate growth and divisional strategy.

- **Net spread**—A target that considers the rate environment and the asset and liability mix.

- **Average return on assets**—Net income target divided by average earning assets.

- **Fee income**—A target related to corporate objectives and divisional strategy.

- **Salary costs**—A target related to corporate objectives and divisional strategy, including domestic and overseas training charged to the divisional budget.

- **Direct expenses**—A target related to corporate objectives and divisional strategy for expenses charged to divisional budgets.

- **Net income**—A calculation that is made as follows:

  1. Convert the net-spread ratio into the currency value by multiplying the spread times the average outstanding loans to obtain the net interest earned. Add fee income.

  2. Assume that indirect expenses will grow by X percent.

  3. Estimate transfer charges.

  4. Assume the division’s historical share of the tax rate.

  5. Use the preceding four steps in the following calculation:
net interest margin
+ noninterest income
- salary expenses
- direct expenses
- indirect expenses
- transfer charges

= taxable income
× (100 - tax rate percentage)
= net income.

DIVISIONAL STRATEGY. Line divisions (income-generating divisions, as opposed to staff divisions such as personnel) normally cover all six management categories with varying degrees of emphasis: risk assets, liabilities, fee income, productivity, control, and personnel. Staff (nonoperating) divisions focus most closely on the two categories related most directly to their functions—productivity and control. No division's plans should omit personnel management and training. Strategy is discussed in the section, "Divisional Strategy in the Six Management Areas."

DIVISIONAL SUPPORT REQUIREMENTS. This component of the plan offers the divisional manager a critical opportunity to document how the division relies on support from other divisions; unless others are made aware of a division's needs, essential resources cannot be allocated. This component of the division's plan thus provides guidance on key corporatewide needs for personnel, space, and systems; planning divisions should coordinate and communicate information on divisional interdependencies to the entire institution.

Some banks allocate costs to interdivisional support and implement complex arrangements for the internal transfer of such charges. Some use simpler mechanisms, such as allocating overhead costs based on a line division's head count. A bank at the initial stage of planning should use a simple system of cost allocation and focus on the more important aspects of planning.

ACTION PLANS. An action plan is an implementation program. It includes targets and dates, sometimes referred to as "milestones," and describes the specific tasks necessary to carry out strategic plans. Action plans are prepared after senior management has authorized the divisional strategy and should cover the following points:
- The strategic objectives supported by the action plan.
- A broad statement of the overall thrust of the action plan.
- The individual or team responsible for implementation.
- Details of major tasks.
- Completion dates by task.
- Manner of verifying and completing steps (for example, a report or presentation).
- Assumptions, variables, and obstacles related to an activity or project.

Box 2.5 presents a sample format for an action plan.

Divisional Strategy in the Six Management Areas

This section discusses divisional strategy as it pertains specifically to the six management areas—risk assets, liabilities, fee income, productivity, control, and personnel.

RISK ASSET MANAGEMENT AND SUPERVISION. Risk assets, as classified by bank regulators, generally exclude cash and near-substitutes for cash, such as receipts due from banks, high-grade securities, and

<table>
<thead>
<tr>
<th>Box 2.4 Sample Format for a Division's Financial Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arrears as a percentage of total loans</strong></td>
</tr>
<tr>
<td>Last year, actual</td>
</tr>
<tr>
<td>Current year, estimate</td>
</tr>
<tr>
<td>Next year, objective</td>
</tr>
</tbody>
</table>

Average return on assets = Fee income - Salary costs - Direct expenses - Net income
gold. Risk assets usually constitute a high proportion of total assets.

The acquisition and management of risk assets, which generate the greatest portion of banks' gross earnings, is a core management process. Divisional plans relating to risk assets must assess current and potential markets, portfolio strategy, and portfolio quality.

**Market strategy**
- For current clientele in the bank's existing markets, assess penetration, retention, and higher profitability. Primary and secondary target groups within the customer base should be identified and a strategy should be defined.
- Acquire new customers in the bank's existing markets.
- Penetrate new markets, such as agribusinesses, small and medium-scale industries, and leasing companies.
- Assess services associated with risk asset management, such as fee-based advisory and technical services for small-business clients or restructuring government enterprises.

**Portfolio strategy**
- Assess the soundness of the current portfolio relative to pricing, maturity, fixed or floating rates, and credit concentrations, and define a targeted portfolio composition.
- Develop appropriate guidelines for financial products, such as fixed-rate mortgages, working capital for start-ups, and leasing and hire-purchase funding activities.

**Portfolio quality**
- Define objectives for the quality of the portfolio—such as classifying not more than X percent as nonaccruals—and an optimal industry-customer-sector mix so that no group is allocated a disproportionate volume of resources.
- Ensure consistency with the essential obligation of each division to appraise the underlying financial viability of each client, including its ability to repay, its management capabilities, its full range of financing needs, its documentation, and the value of its collateral. Lending divisions of banks in developing countries must be able to supervise borrowers judiciously and in some cases provide technical assistance and financial advice.

**Liability management.** Liabilities consist of deposits and other resources used to fund assets. Liability management finances risk assets at optimum spreads, ensures liquidity, and controls interest-rate and term-transformation risk. The treasury division, in conjunction with the operating divisions responsible for lending and deposit-generating activities, manages liabilities. Banks should have coordinating mechanisms for managing liabilities. As described in chapter 4, "Financial Management," banks often form an asset and liability committee (ALCO) to permit risk asset managers to interact with liability managers in determining policies for such issues as profit-liquidity tradeoffs.

Divisions that supply funds must establish the following liability management strategy relative to their products and markets:
- Define target markets for each product, such as corporate and household deposits, CDs, and savings.
- Identify the bank's role and place in the market and its relative share.
- Manage liabilities denominated in foreign exchange.
- Establish customer delivery systems that have market acceptance and are cost-effective for the bank.

**Fee income management.** Fee income contributes to net income with no funding requirement and only partial dependence on loan demand. Opportunities for generating fee income should be emphasized, as should the quality and structure of the mechanisms for delivering fee-based services.

Planning should target market segments for fee-based products and define profit dynamics by product. Fee structures must be reexamined regu-

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**Box 2.5 Sample Format for an Action Plan**

<table>
<thead>
<tr>
<th>19__ Action Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division ____________</td>
</tr>
</tbody>
</table>

**Objective:**
Action plan description:
Project manager:
Start date:
Completion date:

<table>
<thead>
<tr>
<th>Schedule/ targets</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

**Variables:**

**Financial impact:**
larly to ensure the profitability of all major product lines. Products should be reexamined regularly to ensure that they meet the requirements of target markets. As financial markets are deregulated, product development is quickly becoming a competitive tool in the banking industry, and fee-based products are becoming more important.

The market acceptance of loan-related fees depends largely on credit market conditions; such fees should be part of a bank's loan-pricing policy.

**Productivity Management.** Productivity management seeks to optimize output within the context of the business plan. By wringing out costs from the existing business mix and sanctioning expense growth only if marginal revenue exceeds marginal cost within a reasonable period of time, increasing productivity will be a permanent part of the business. As competition exerts downward pressure on bank spreads, productivity management becomes more important in the banking industry. The result of strategies in this area should be a rising productivity index, expressed as the ratio of net revenues after operating expenses to net revenues before operating expenses. Strategies must be developed to:

- Reduce the costs of providing existing products and services.
- Allow expense growth only if marginal revenues exceed marginal cost.
- Consider planned changes in product offerings, work flows, and organizational controls.
- Analyze and improve the transaction processing and product and service delivery system for customers.
- Consider changes in the location and configurations of premises, hardware and software requirements, and human resource deployment.
- Develop and implement systems that optimize efficiency by eliminating costs, modifying or eliminating certain products or customer services, eliminating overhead expenses, redefining staff levels and skills needed, and defining the needs for an effective management information system.

**Control Management.** Control processes help line managers achieve specified policy goals by helping them detect and correct negative performance before the bank incurs a major risk or loss. Some control functions are exercised by specialized staff that perform internal audits; thus, control is both a line management and a staff management responsibility. The divisional planning process provides an opportunity to review the adequacy of internal controls and to develop a program to strengthen or expand them as necessary.

A commercial bank's management exercises control through a broad range of audit and control functions:

- Preparing and disseminating manuals that specify bank policy, guidelines, and standards and form the basis for compliance audits.
- Formalizing bottom-up reporting flows that include the required responses of line managers in reporting policy compliance and noncompliance.
- Building the relevant audit procedures and credit reviews into all new systems and business programs before, during, and after implementation.

A management information system (MIS) is a tool that supports control functions. The MIS plan, an important part of the total planning process, is derived largely from divisional strategies.

**Personnel Management.** Personnel are a bank's most critical resource. Growth and success are determined by whether competent staff members are allocated to priority business opportunities. Developing individual skills and augmenting the collective skills of staff members is a fundamental priority for divisional management.

Each divisional manager is responsible for creating an appropriate working environment—identifying problems, opportunities, and needs that can be met by training and developing selected personnel in managerial or technical skills, and planning and directing the implementation of training and development. The manager should meet these responsibilities by maintaining focused contact with employees, using the following steps:

- Ensuring that professionally qualified people receive training and are assigned to key positions.
- Coaching subordinates to help them understand and meet performance standards.
- Planning for vacancies that may develop in key positions.
- Periodically reviewing the performance and potential of each subordinate.
- Discussing achievements and developmental needs with each subordinate.
- Helping develop professional training programs to allow staff mobility and to integrate overseas training with staff-retention incentives.
- Periodically reviewing and improving the assignment and definition of job responsibilities.

Within the bank, a central training and organizational development division (a personnel or human resources management division) will provide consultative and coordinating services to line management in carrying out its human resource planning, training, and developmental responsibilities.
In meeting these responsibilities, the centralized division should stress, but not limit itself to, the following training and organizational development efforts:

- Orienting new employees.
- Building on-the-job training, so that each employee can perform their work assignments effectively.
- Providing domestic and foreign training to support a bank's policy of promotion from within, and developing a registry of the staff capable of filling demanding jobs.
- Coordinating staff development with the institution.
- Providing training and development experience necessary for continued career growth and the retention of experienced employees.

**Summary and Conclusion**

Planning is an excellent management tool, encompassing all aspects of a bank's operations. But, to ensure its success, senior management must recognize that planning is essential to the viability of the bank. Such recognition often comes from competitive shocks, a sharp decline in earnings, or a restructuring of the institution. Planning is a line management responsibility. Consultants, staff planners, and other specialists can provide useful guidance and analysis to facilitate the planning process, but planning must be done by those who are responsible for the business—starting with the chief executive officer, without whose involvement planning is largely a burdensome administrative process.

Successful planning requires an institutional planning mechanism to design, coordinate, and monitor the development of the plan. This function may be located in the CEO's office with a chief financial officer, or the responsibility may be vested in a planning department created specifically for the purpose. A planning function elaborates corporate objectives, communicates plan requirements to the divisions, manages the review process, develops balance sheet and earnings forecasts, and coordinates contingency planning. The process should be kept simple. Overly ambitious planning systems tend to become a burden on management rather than a management tool.

An operational plan should start with a clearly defined sequence of events that identify the nature and timing of the various divisional contributions. The objectives, priorities, and, indeed, tone of the plan should be framed by top management. These strictures notwithstanding, the final product should be a document that reflects the working level situation of the bank.

Planning in U.S. banks began with questionable financial data and limited systems capability, but has since been supported by the necessary systems development. In developing countries, banks can also benefit from systems development. One of the necessary tools is a forecasting model. Given the constantly changing economic and financial conditions that affect the ability of a bank to meet the objectives delineated during the planning process, banks must establish a forecasting and contingency planning capability.

Forecasting should be done monthly, based on input from both line and staff divisions. Line divisions provide updated forecasts of assets, liabilities, revenues, and expenses, as well as the relationship between rates on earning assets and liabilities and interest rates on such market instruments as the interbank rate, the time deposit rate, and a bank rate. (Annex B provides a simple example of a forecasting model developed in Lotus. It provides a balance sheet, income statement, and key financial ratios for a five-year period.)
Annex A: Checklist for Strategy Testing

The plan review presents an opportunity to evaluate the strategy chosen for a particular market. It also helps provide feedback to divisional managers and yields additional insights into the thinking behind the development of unit strategy. A bank should use the following checklist as a guide to the review and for focusing on items to be discussed in greater depth. (The checklist is from Steiner 1979.) In particular, inconsistencies in the plan should be examined.

Strategic Market Plan Evaluation

1. Are the data sufficient to make an adequate evaluation of the market?
2. If not, what additional data are required, and where should they be obtained?
3. Is the served market defined clearly?
4. What is the size of the market in terms of volume and value?
5. What is the historic growth rate and future projection?
6. How many customers are involved? How many account for 50 and 80 percent of volume?
7. Is the decision process of these accounts known, and can the bank reach and influence the decision process?
8. Are the customers’ needs known, and do the bank’s services meet them?
9. Are the relevant competitors and their relative power and strategies identified?
10. Is the assessment of the bank’s position relative to the competitors developed accurately?
11. Does the bank have the resources to serve this market?
12. Would serving it be consistent with the bank’s overall objectives?
13. Have environmental influences on the market been considered adequately?
14. Is the ability to differentiate examined, and is it satisfactory?
15. Are the profitability and price sensitivity of the market identified?
16. Are the key success factors for this market identified?

Plan Review

Mission and Objectives.
1. Is the mission statement clear and appropriate?
2. Are objectives specified, quantified, and identified by people and time?
3. Are these objectives realistic?

Environment and Market Assumptions.
4. Have all important assumptions been identified and taken into consideration?
5. Are the assumptions reasonable?
6. What is the basis of information behind the assumptions?

Competitive Strength.
7. Is the bank’s market share and those of the major competitors identified clearly?
8. Is the bank’s profitability relative to competition identified?
9. Is the bank’s relative service quality identified and evaluated?
10. Is the price of the bank’s service evaluated relative to major competitors?
11. Are the bank’s delivery system and marketing effort identified relative to major competitors?
12. Is the bank’s committed level of resources relative to major competitors identified and evaluated?

Opportunity Assessment.
13. Are the opportunities clearly defined and assessed relative to direction and potential impact?
14. Are external threats identified clearly and assessed relative to direction and potential impact?

Market Segment Portfolio Strategy.
15. Is the market segment portfolio strategy of each business established clearly?
16. Is the proposed strategy consistent with the market portfolio strategy position?

Action Plan Objectives.
17. Are the action plan objectives identified and quantified clearly for each strategic factor in relation to the level and nature of change planned?
18. Does each subprogram have its expected objective specified in relation to its contribution to the desired change in the relevant strategic factor?
19. Are the action plan objectives supportive and consistent with the market strategy and market segment objective?
20. Are the action plan objectives consistent with the inputs and assessments, including anticipated responses from competitors?
The opinions of different people are also not all of equal weight. Thus, if the chief executive officer feels that the system fails to produce the appropriate strategic decisions, the system must clearly be improved. However, if the CEO finds it acceptable but other key division managers find it a waste of time or overhead, this too is a serious cause for concern. The audit should be conducted at various planning levels throughout the bank, with top management evaluating all parts of sections A, B, and C below, but only selected items in sections D and E. These latter sections, however, should be completed by unit and divisional management. When the audit is completed, the results should be compared and evaluated for the bank as a whole and for the various levels of the management hierarchy. This process should lead to discussions and the introduction and testing of methods to improve the shortcomings identified. In this way, planning systems can significantly improve a bank’s ability to make the appropriate strategic decisions.

A. OVERALL MANAGEMENT-PERCEIVED VALUE.
1. The chief executive officer believes that the system helps him or her to do his or her job better.
2. Other key line managers find the system useful to them.
3. Overall, most managers consider the benefits of planning greater than the costs.
4. Major changes are needed in the strategic planning systems.

B. DOES THE PLANNING SYSTEM GIVE THE “RIGHT” SUBSTANTIVE ANSWERS AND RESULTS?
5. Developing the bank’s basic mission and business activities.
6. Foreseeing future major opportunities.
7. Foreseeing future major threats.
8. Properly appraising bank strengths.
10. Effectively identifying and evaluating key competitor strategies.
11. Identifying action program priorities.
12. Developing useful long-term objectives.
15. Detecting and preventing strategic shocks.
16. Improving the bank’s indicators of financial performance: assets, liabilities, profits, return on assets, and earnings per share.
17. The performance of the bank has been better than others not doing comprehensive planning.
C. Does the System Provide Valuable Ancillary Benefits?

18. The system has improved the quality of management.
19. The system provides a unifying coordinating force in the bank.
20. The system improves communications and collaboration throughout the bank.

D. Design of the Planning System.
21. Top management has accepted the idea that strategic planning is its major responsibility.
22. The system fits the management style of the bank.
23. The system fits the needs of the bank's strategic decisionmaking process.
24. Corporate planning works well with other line managers and staff.
25. The system of reaching strategic decisions works well within the bank.
26. The system uses appropriate, understandable concepts for the bank's business.

E. Are the Planning Processes Effective?
27. Top management spends an appropriate amount of time on strategic planning.
28. Line managers accept planning and don't just pay lip service to it.
29. Line managers spend an appropriate amount of time in developing strategic plans.
30. The procedures in the plan are acceptable and appropriate.
31. The procedures are well understood within the bank.
32. The workload to complete the plans is acceptable to managers and staff.
33. The process is effective in inducing in-depth strategic thinking.
34. The process is not too routine, inflexible, or rigorous.
35. New ideas are generally welcomed.
36. Managers really do face up to bank weaknesses in developing plans.
37. Divisions get sufficient guidance from central office for effective planning.
38. Divisions are encouraged and helped to prepare plans by the central office.
39. The ability of managers to undertake planning is taken into account in measuring their performance.

Annex B: Bank Projection Model

This projection model (see table 2B.1) is designed for financial intermediaries, particularly commercial and development banks. It forecasts the balance sheet, income statement, and key financial performance indicators and displays the percentage breakdown of assets and liabilities. It permits the user to perform sensitivity analysis and assess the impact of various interest-rate scenarios.

The model comprises the following components:
- Balance sheet
- Income statement
- Key financial performance indicators
- Forecast assumptions.

The balance sheet and income statement are expressed in millions or thousands, depending on the value of the currency.

All interest-bearing assets and liabilities are linked to both a corresponding growth rate and an interest rate (except for government securities reserve). And all non-interest-bearing assets and liabilities have a corresponding growth rate (except for cash reserves, the loan loss reserve, and the provision for taxes).

The following notes describe the specific line items in the balance sheet and the income statement that have implicit assumptions.

**Balance Sheet**

**Cash** is broken down into two components; the line item that appears as "cash reserves" reflects the reserve requirement that is held in the form of cash. This account consists of the specific required percentage of each category of deposits. Since this requirement varies from case to case, the formula should be adjusted for the appropriate proportions required by the regulatory authorities in a particular country and/or for the specific bank. Similarly, a portion of government securities reflects the reserve requirements, and should also be adjusted for the appropriate proportion.

**The Interbank Funds** (nal) represents the balancing item on the asset side of the balance sheet—that is, when assets fall short of the total liabilities and capital, this account will compensate for the gap. On the other hand, "borrowing from the Central Bank" offsets imbalances when assets exceed the total liabilities and capital. These items are linked to corresponding interest rates and automatically
adjust; therefore, they should be left intact. Reserves and Retained Earnings reflect additions of the current-year profit, net of all appropriations to the previous year.

**Income Statement**

Interest Income is the aggregate of all interest earned from various types of interest-bearing asset accounts. Similarly, interest expense represents the sum of all interest paid on different types of interest-bearing liabilities.

**Table 2B.1 Sample for XYZ Nationalized Commercial Bank**

**Component A. Projected Balance Sheets as of December 31**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Percent</td>
<td>Amount</td>
<td>Percent</td>
<td>Amount</td>
</tr>
<tr>
<td>Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>480</td>
<td>2</td>
<td>520</td>
<td>2</td>
<td>563</td>
</tr>
<tr>
<td>Cash reserves</td>
<td>710</td>
<td>3</td>
<td>789</td>
<td>3</td>
<td>877</td>
</tr>
<tr>
<td>Total cash</td>
<td>1,190</td>
<td>5</td>
<td>1,309</td>
<td>5</td>
<td>1,440</td>
</tr>
<tr>
<td>Interbank balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Foreign</td>
<td>590</td>
<td>3</td>
<td>620</td>
<td>2</td>
<td>650</td>
</tr>
<tr>
<td>Subtotal</td>
<td>590</td>
<td>3</td>
<td>620</td>
<td>2</td>
<td>650</td>
</tr>
<tr>
<td>Interbank funds (balancing item)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>72</td>
</tr>
<tr>
<td>Interest-bearing interbank</td>
<td>160</td>
<td>1</td>
<td>176</td>
<td>1</td>
<td>194</td>
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<tr>
<td>Government securities</td>
<td>4,720</td>
<td>21</td>
<td>5,247</td>
<td>21</td>
<td>5,834</td>
</tr>
<tr>
<td>Government securities (investment)</td>
<td>378</td>
<td>2</td>
<td>408</td>
<td>2</td>
<td>441</td>
</tr>
<tr>
<td>Government securities (reserves)</td>
<td>4,342</td>
<td>19</td>
<td>4,839</td>
<td>19</td>
<td>5,393</td>
</tr>
<tr>
<td>Subtotal</td>
<td>4,880</td>
<td>21</td>
<td>5,423</td>
<td>22</td>
<td>6,027</td>
</tr>
<tr>
<td>Loans and bills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>1,441</td>
<td>6</td>
<td>1,585</td>
<td>6</td>
<td>1,743</td>
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<tr>
<td>Industry</td>
<td>5,102</td>
<td>22</td>
<td>5,867</td>
<td>23</td>
<td>6,747</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>3,608</td>
<td>16</td>
<td>3,789</td>
<td>15</td>
<td>3,978</td>
</tr>
<tr>
<td>Others</td>
<td>4,535</td>
<td>20</td>
<td>4,988</td>
<td>20</td>
<td>5,487</td>
</tr>
<tr>
<td>Total domestic loans</td>
<td>14,685</td>
<td>65</td>
<td>16,228</td>
<td>65</td>
<td>17,955</td>
</tr>
<tr>
<td>Foreign loans</td>
<td>562</td>
<td>2</td>
<td>618</td>
<td>2</td>
<td>660</td>
</tr>
<tr>
<td>Total loans</td>
<td>15,247</td>
<td>67</td>
<td>16,846</td>
<td>67</td>
<td>18,634</td>
</tr>
<tr>
<td>(Loan loss provision)</td>
<td>586</td>
<td>3</td>
<td>674</td>
<td>3</td>
<td>745</td>
</tr>
<tr>
<td>Net loans</td>
<td>14,660</td>
<td>65</td>
<td>16,172</td>
<td>65</td>
<td>17,889</td>
</tr>
<tr>
<td>Accrued interest receivable</td>
<td>230</td>
<td>1</td>
<td>234</td>
<td>1</td>
<td>239</td>
</tr>
<tr>
<td>Equity investment</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Other assets</td>
<td>1,030</td>
<td>5</td>
<td>1,133</td>
<td>5</td>
<td>1,246</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>130</td>
<td>1</td>
<td>137</td>
<td>1</td>
<td>143</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,400</td>
<td>6</td>
<td>1,514</td>
<td>6</td>
<td>1,638</td>
</tr>
</tbody>
</table>
## Table 2B.1 Sample for XYZ Nationalized Commercial Bank (cont.)

### Component A. Projected Balance Sheets as of December 31 (cont.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Percent</td>
<td>Amount</td>
<td>Percent</td>
<td>Amount</td>
</tr>
<tr>
<td>Total assets</td>
<td>22,720</td>
<td>100</td>
<td>25,037</td>
<td>100</td>
<td>27,717</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand</td>
<td>6,070</td>
<td>27</td>
<td>6,677</td>
<td>27</td>
<td>7,345</td>
</tr>
<tr>
<td>Savings</td>
<td>4,490</td>
<td>20</td>
<td>5,029</td>
<td>20</td>
<td>5,632</td>
</tr>
<tr>
<td>Time</td>
<td>9,110</td>
<td>40</td>
<td>10,203</td>
<td>41</td>
<td>11,428</td>
</tr>
<tr>
<td>Total deposits</td>
<td>19,670</td>
<td>87</td>
<td>21,909</td>
<td>88</td>
<td>24,405</td>
</tr>
<tr>
<td>Interbank borrowings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>1,860</td>
<td>8</td>
<td>1,953</td>
<td>8</td>
<td>2,051</td>
</tr>
<tr>
<td>Foreign</td>
<td>360</td>
<td>2</td>
<td>378</td>
<td>2</td>
<td>397</td>
</tr>
<tr>
<td>Borrowings from central bank (balancing item)</td>
<td>0</td>
<td>0</td>
<td>77</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total interbank borrowings</td>
<td>2,220</td>
<td>10</td>
<td>2,408</td>
<td>10</td>
<td>2,448</td>
</tr>
<tr>
<td>Bills payable</td>
<td>220</td>
<td>1</td>
<td>242</td>
<td>1</td>
<td>266</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>220</td>
<td>1</td>
<td>242</td>
<td>1</td>
<td>266</td>
</tr>
<tr>
<td>Provision for taxation</td>
<td>280</td>
<td>1</td>
<td>84</td>
<td>0</td>
<td>119</td>
</tr>
<tr>
<td>Subtotal</td>
<td>720</td>
<td>3</td>
<td>568</td>
<td>2</td>
<td>651</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>22,610</td>
<td>100</td>
<td>24,885</td>
<td>99</td>
<td>27,503</td>
</tr>
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### Component B. Projected Income Statements as of December 31

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### Component C. Key Financial Performance Indicators (percentages)

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Table 2B.1 Sample for XYZ Nationalized Commercial Bank (cont.)

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Component D. Forecast Assumptions (cont.)

(Percentages)

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**Interest rates on loans and bills**

Domestic loans

- Agriculture: 14.00 14.00 14.00 14.00 14.00
- Industry: 11.00 13.00 13.00 13.00 13.00
- Wholesale and retail trade: 16.00 16.00 16.00 16.00 16.00
- Other: 12.80 10.80 10.80 10.80 10.80
- Foreign: 14.00 14.00 14.00 14.00 14.00

**Interest rate on interest-bearing liabilities**

- Interest rate on deposits:
  - Demand: 0.00 0.00 0.00 0.00 0.00
  - Time: 13.70 13.70 13.70 13.70 13.70
- Weighted average rate: 12.23 12.23 12.23 12.23 12.23

**Interbank borrowings (interest rate)**

- Domestic: 8.00 8.00 8.00 8.00 8.00
- Central bank: 9.00 9.00 9.00 9.00 9.00

- Yield on interest-earning assets: 12.09 11.90 11.90 11.89 11.89
- Cost of interest-bearing liabilities: 11.66 11.69 11.72 11.75 11.78
- Net spread: 0.43 0.21 0.17 0.14 0.11

- Net loan losses: 0 0 0 0 0
- Commissions and fees (growth rate): 10.00 10.00 10.00 10.00 10.00
- Other income (growth rate): 4.00 4.00 4.00 4.00 4.00

**Operating expenses (growth rate)**

- Personnel: 5.00 5.00 5.00 5.00 5.00
- Other expenses: 5.00 5.00 5.00 5.00 5.00

- Tax rate: 78.57 50.00 50.00 50.00 50.00
- Dividend payout ratio: 83.33 35.00 35.00 35.00 35.00
- Appropriations ratio: 16.67 14.00 14.00 14.00 14.00

**Notes**

1. For a full discussion of the forces that impel banks to undertake strategic planning, see Channon (1986).

2. In planning terminology, an operational plan is a comprehensive statement of strategy, tactics, and budget. The term is often used interchangeably with business plan.

3. Several developmentally oriented financial institutions have performed their role with professionalism and only minor losses. Such institutions exist in Germany, Japan, France, Singapore, and Italy, as well as in Bangladesh and India. Many development banks that have failed have not followed the operating principles, policies, and procedures followed by these successful institutions. Autonomy in the selection of staff and in lending decisions, salary structures competitive with private-sector financial institutions, a cadre of professional senior managers, the use of capital markets for funding, and explicit financial performance objectives are among the critical operating principles—the costs of transactions processing and supervising developmental lending activities effectively have been found to be high. Banks engaged in these activities should quantify and monitor operating and bad-debt costs associated with such activities.

4. Wealthy individuals are euphemistically referred to as "private banking."

5. The trend in Eastern Europe is a move toward
universal banking in which banking institutions either
directly or indirectly through their subsidiaries engage
in equity securities transactions. Soon some of these
countries will have to address the integration of insur-
ance and banking, a trend increasingly prevalent in
Western Europe.

6. Small, narrowly focused banks are sometimes
referred to as “niche” banks (or “boutiques”).

7. Balancing a narrow market and product focus
with a sectorial and geographic diversification of port-
folio is prudent since a sufficient amount of diversifica-
tion is needed to insulate a bank from the risks of
excessive loan-portfolio concentration.

8. As noted earlier, a bank may undertake a sim-
pler, centralized process at the corporate level, using
the same substantive elements and formats. The ex-
ample of a table of organization (TO) in the “Introduc-
tion” is a highly simplified structure for a commercial
bank engaged in wholesale corporate banking, interna-
tional banking, and retail banking. With this TO, plan-
ing would take place at each level represented by a
box.

9. This analysis is sometimes referred to as SWOT:
strengths, weaknesses, opportunities, and threats.

10. Core deposits are considered stable funding
sources. They usually consist of current accounts, sav-
ings accounts, and retail time deposits.

11. For a description of how bank managers under-
mine financial viability by reaching for earnings in the
face of a deteriorating loan portfolio, see de Juan (1987).

12. In some countries, bank branches are sizable
and important operating units containing retail bank-
ing, corporate lending, operations, and even treasury
functions. In other countries, branches conduct mainly
retail banking business. The planning process follows
the bank’s configuration and level of sophistication in
financial management. As banks become increasingly
sophisticated, they tend to focus more on planning for
discrete market segments, such as corporate and retail,
and eventually on subsegments of those markets, rather
than on branches in the broad sense.

13. This format assumes that divisions are full profit
centers with full balance sheets and income statements.
The format can be modified according to the degree of
decentralized financial management in a particular fi-
nancial institution.

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Managing Credit Risk

Diana McNaughton with Clayton Townsend Dietz

The Objectives of Credit Risk Management

Credit risk management lies at the heart of commercial banking. Although banks initially emerged as deposit takers, they soon matured into intermediators of funds, thereby assuming credit risk. Credit became “the business of banking, and the primary basis on which a bank’s quality and performance are judged” (Mueller 1976). The credit management process deserves special emphasis, because proper credit management greatly influences the success or failure of financial institutions. Studies of banking crises throughout the world have concluded that the most frequent factor in the failure of banks has been poor asset (usually loan) quality. Many bankers and regulators believe that an understanding of a bank’s credit risk management process provides a leading indicator of the quality of a bank’s loan portfolio.

While asset quality directly reflects the quality of management, it is also significantly influenced by other factors, including government policy, macroeconomic conditions, and the nature and interests of bank ownership, which in turn influence management. Despite the importance of external influences on banks’ asset quality, evaluating the credit management process is an essential complement to an analysis of a bank’s loan portfolio and financial statements, and building credit management is a precondition for strong banks.

The key elements of effective credit management are well-developed credit policies and procedures; strong portfolio management; effective credit controls; and, the most critical element of all, a well-trained staff that is qualified to implement the system. This chapter describes the system of credit risk management and provides an overview of the system’s major components. The purpose of the chapter is to provide guidance to those who must either evaluate or strengthen credit risk management. It indicates where weaknesses may occur, describes a suitable organizational structure for effective credit management, discusses the determinants of the credit culture of financial institutions, and concludes with a statement of the basic principles of good credit. The chapter also includes three annexes: (1) evaluation procedures for loan portfolios, (2) an internal control questionnaire, and (3) a credit culture checklist. These annexes, the first two of which are drawn from U.S. bank supervisory authorities, can facilitate diagnosing or developing credit risk management programs.

The system described here is applicable primarily to managing commercial and industrial credit in commercial banks, although many of the broad principles may also be applied to savings, leasing, consumer, mortgage, agricultural, and development-finance institutions. Institutions that lend to micro-enterprises, rural borrowers, and other small borrowers require a specialized process and have experimented with various techniques described fully elsewhere. Therefore, credit risk management for the smaller credit borrowers is not described here.

Risk taking is central to banking. Banks are successful when the risks they take are reasonable, controlled, and within their financial resources and credit competence. Assets, primarily loans, must have the liquidity necessary to cover withdrawals, expenses, and losses and still generate a profit large enough for shareholders to earn an acceptable return. These objectives condition a bank’s policies and guidelines for risk taking and risk management. Beyond the bank’s institutional objectives, sound credit management supports broader national policy objectives—notably, allocating scarce financial resources efficiently in order to foster economic growth and minimize losses to the economy.

Credit risk management merits heightened attention in the current policy environment. The bank restructuring programs under way in numerous
countries involve significant costs. These banks must improve their credit management in order to prevent the quality of their assets from deteriorating once again. In addition, financial liberalization, the reforms taking place in socialist economies, and the diminished state role in banking imply greater autonomy and financial responsibility for banks. In many of these systems, banks are expected to assume a new role for which they are unprepared—to exert financial discipline on the enterprise sector by allocating credit judiciously. In sum, the current policy context calls for greatly enhanced credit management skills, policies, and procedures.

The Challenge of Credit Risk Management in Developing Markets

Banks in developing markets face intense challenges in managing credit risk. Government controls, external and internal political pressures, production difficulties, financial restrictions, market disruptions, delays in production schedules, and frequent instability in the business environment undermine the financial condition of borrowers. Moreover, financial information is often unreliable, and the legal framework frequently does not support debt recovery. In many of these countries, the difficult external context is reinforced by internal weaknesses, further undermining asset quality.

Banks in developing markets often do not have a well-developed process for managing credit risk. The following deficiencies are among the most common:

- The absence of written policies.
- The absence of portfolio concentration limits.
- Excessive centralization or decentralization of lending authority.
- Poor industry analysis.
- A cursory financial analysis of borrowers.
- An excessive reliance on collateral.
- Infrequent customer contact.
- Inadequate checks and balances in the credit process.
- The absence of loan supervision.
- A failure to improve collateral position as credits deteriorate.
- Poor controls on loan documentation.
- Excessive overdraft lending.
- Incomplete credit files.
- The absence of asset classification and loan-loss provisioning standards.

- A failure to control and audit the credit process effectively.
These deficiencies lead to loan portfolio weaknesses, including: an overconcentration of loans in one industry or sector, large portfolios of nonperforming loans, credit losses, insolvency, and illiquidity.

Certainly banks in many of these markets operate in an economic environment that poses objective difficulties for good credit management—all the more reason to strengthen it.

Credit Policies, Directives, and Procedures

Credit Policy

Credit policy provides the framework for the entire credit management process. Written credit policies are the cornerstone of sound credit management. They set objective standards and parameters to guide bank officers who grant loans and manage the loan portfolio. They also provide the board of directors, regulators, and internal and external auditors with a basis for evaluating a bank's credit management performance. When credit policies are carefully formulated, administered from the top, and clearly understood by all organizational levels, they enable bank management to maintain proper credit standards, avoid excessive risks, and evaluate business opportunities properly. Bank supervisors consider sound written loan policies to be fundamental to good credit risk management. In developing countries, and in transitional socialist economies, where credit policy often emanates from the monetary authorities, banks do not maintain a comprehensive body of internally generated policy guidelines. As the state disengages itself from the financial markets, these banks must develop internal policies.

Why policy? The basic reason for policy—whether the bank has 2 employees or 25,000—is to ensure operational consistency and adherence to uniform, sound practices. The "policy" should be the same for all—from the most junior officer to the bank's president. Sometimes referred to as a "decision made in advance," policy is the general rule designed to guide each decision. Making loans means making decisions, and advance policy thinking reduces alternative courses of action, simplifying and hastening the decisionmaking process. A sound policy contributes to a bank's success by supporting prompt credit decisions.

What is policy? Webster's dictionary calls it "a
settled course adopted and followed by a government, institution, body, or individual” and refers to the “prudence of wisdom in the management of affairs” and the “management of procedure.” Policies are a way of doing things—a course of action—whereas principles are general fundamentals for determining appropriate policy and how it is to be implemented. Lending policy is one facet of the overall spectrum of policies that guide a bank’s operations.

Good policy is a product of the intelligent application of sound principles to changing combinations of factors and circumstances. Churchill’s advice is useful: “The important thing is not merely whether you can grapple with the perplexities of life but whether you can stay on course.”

The primary role of banking is to gather and husband deposits with safety, and to re lend them on a sound basis; other services are subsidiary and peripheral. Sufficient funds must be available at all times to meet withdrawals by depositors and borrowing demands from borrowers with a legitimate call on lending resources. Both depositors and regulatory authorities expect that deposits will be safeguarded through adequate liquidity and risk diversification, and that the inherent risk in each credit extension be held to a minimum. Shareholders—the owners—expect a bank to earn a fair return that, from the bank’s viewpoint, should be sufficient to stimulate and attract an adequate flow of capital funds.

The credit-creation role peculiar to commercial banks is central to a banking operation. The banker’s job is to decide who can be trusted with the depositors’ money. This banking function is critical, and is the highly sensitive process that substantially leverages capital structure. A bank must decide what loans it will or will not make, how many of each type of loan it will make, to whom it will lend, and under what circumstances it will lend. There are few businesses in which one can get into trouble so quickly. Risk cannot be ignored. All of these critical decisions call for objectives to maintain a desirable relationship among loans, deposits and other liabilities, and capital. Sound credit policy promotes loan quality. Credit policy objectives should encompass several elements: the regulatory environment, the availability of funds, the selection of risk, loan portfolio balance, and the term structure of liabilities.

The board of directors guides credit policy formulation. Formulation begins with a document, approved by the board, that sets out the basic provisions that are to govern the extension of credit. The document thus constitutes the foundation of written lending policies.

Developing credit policies is particularly important when a bank must adapt to a complex and rapidly changing economic environment and faces issues that formerly received little or no attention. Most important, policy formulation induces the board of directors or a senior credit policy committee to determine the level of acceptable risk in light of desired profitability and efficiency, while considering the needs of the markets in which the bank operates. Credit policies establish a common credit language throughout an institution, which is critical to operational consistency and continuity as institutions grow, diversify, and delegate lending authority and responsibility. The credit language established by explicit policies is the basis for the growth of a common institutional credit culture. See annex C, “Credit Culture Questionnaire,” which highlights the key elements of a credit culture.

Credit policies are customarily compiled in a manual for each officer involved in extending credit. The general policies typically formulate the basic principles of credit extension, define the organization and responsibilities of a credit policy committee or senior loan committee, and establish discretionary credit limits and approval procedures.

**Directives**

To address policy issues in response to changes in markets and economic conditions, banks often disseminate specially designated credit policy directives. The directives typically provide general parameters for the types of credit that the bank will offer and the types of customers and markets it will serve, as dictated by current strategic decisions. They will also regulate loan-concentration levels in particular market sectors or industries. The lending division often issues or modifies directives, but changes are issued by a credit policy division under the responsibility of the senior credit policy committee or the senior loan committee.

The directives and the policy manual constitute the sum total of the credit policies of a bank at any one time. Officers must familiarize themselves and comply with these documents. Compliance is controlled both during the process of loan approval and after disbursement. Control functions are carried out by internal and external auditors, independent loan review functions, directors’ commit-
tees, and regulators. Many banks assign responsibility for developing and disseminating policies and directives to one staff group, and assign the task of monitoring the application of these lending policies (as well as the quality of the bank's portfolio) to another group.

**Procedures**

The lending procedures, also usually compiled in the credit policy manual, may cover the submission and processing of credit applications, the credit analysis process, and general procedures for maintaining credit files and exchanging credit information with banks and suppliers. Procedures may also cover the aspects of lending that are governed by regulation or law. Other items often included pertain to credit reviews and inspections, outstanding debts, doubtful assets, and the recovery process.

Operational procedures—the process for carrying out the lending function—are generally included in an operations manual for the credit department. The procedures include maintaining and generating liability records to support periodic reviews for credit renewal, generating loan-compliance checklists, and preparing reports on account profitability and market exposure.

**An Overview of Credit Risk Management**

Credit risk management is a process, a comprehensive system. The process begins with identifying the lending markets, often referred to as “target markets,” and proceeds through a series of stages to loan repayment. The individual components of the process illustrated in box 3.1 are discussed in the following subsections.

**Credit Origination**

As described earlier, a bank's credit policies will guide its lending activities, determine its target markets and customers, and define its acceptable and unacceptable risks. The loan officer must then carry out the dual role of salesperson and expert in the credit-granting process. Once a potential borrower has been identified, the lending officer initiates the decisionmaking process by gathering information from the potential borrower to decide whether the request is compatible with current bank policy. The officer then must identify why the borrower needs additional cash. The reason may not always be the same as the borrower's stated purpose for the loan. Knowing the true reason enables the officer to choose the appropriate term structure and amortization schedule for the loan, and the proper loan product (such as an investment, working capital, or mortgage loan).

An important step in credit origination is to visit the potential customer. A thoughtfully conceived visit is one of the keystones to credit assessment. Only through repetitive, preplanned office visits and plant tours is the lending officer able to gain sufficient knowledge to evaluate management properly, a principal ingredient of any lending decision. The visit also facilitates understanding a company's current business situation, its future prospects, and its financial needs.

**Repayment Source Analysis**

Once the officer understands the nature of the loan request, ascertaining whether it is reasonable and falls within the realm of the bank's activities, he or she performs a repayment source analysis. This analysis, indicating both a primary and a secondary source of repayment, enables the loan officer to grant or decline the loan request. To determine the likelihood of repayment, the loan officer must examine the strengths and weaknesses of the customer and assess the loan request in view of financial statements, cash flow, and the borrower's business strategy, market, management skills, information, and experience. It is critical that the loan be designed for the purpose intended. Purpose and repayment are intertwined: a knowledge of the nature of the loan permits both the banker and the borrower to tie the terms of repayment to the purpose of the loan.

When performed properly, the repayment source analysis will vary specifically according to the type of loan requested. The change in emphasis is particularly relevant for long-term versus short-term loans. The long-term profitability of the business is more critical for long-term loans, because cash generated by investment is usually the source of repayment. In short-term loans, a detailed analysis of the trade cycle, or asset conversion cycle—inventory to accounts receivable, to cash—is required to determine the specific balance-sheet items to be converted into cash to repay the loan.

Boxes 3.2–3.5 (derived from Osius 1992) summarize the qualitative aspects of credit analysis.
Box 3.1 Flowchart for Credit Risk Management

Market definition and target markets (derived from Strategic Plan)

Initiation

Origin
- Client request
- Prospect discovery
- Outside referral

Evaluation
- Purpose
- Business
- Management
- Figures

Negotiation
- Tenor
- Repayment
- Covenants
- Security
- Other

Approval
- Sponsoring officer(s)
- Senior(s)

Documentation and disbursement

Documentation
- Legal drafting
- Document review
- Collateral checks
- Waiver of terms
- Other

Disbursement
- Notes valid
- Documentation properly executed

Portfolio management

Administration
- Figures
- Covenants
- Collateral
- Payments
- Credit reviews

Orderly payment
- "Unforeseen events"

Work-out
- Early recognition
- Strategy
- Management of plan
  - Terms renegotiation
  - Collection efforts
  - Legal efforts
  - Reorganization

Repayment
- Principal in full
- Interest in full

Loss
- Principal
- Interest
Building Strong Management and Responding to Change

Box 3.2 Four Steps in the Credit Analysis Process

1. Identify the Purpose of Finance

An analysis required for the purpose of providing short-term (30-day) finance, in anticipation of a seasonal reduction of outstanding accounts receivable, will be quite different from the decision to extend a five-year term credit to finance plant rehabilitation and expansion, or to invest in bonds that will finance the acquisition of a target firm by management or some other entity in a buyout scheme.

2. Identify the Source of Repayment

Having identified the purpose of a loan, the analyst should be able to understand how the company plans to repay the loan. Is the loan to be used to purchase inventory that will be sold and whose proceeds will be used to repay the loan? Or is it to be used to build a plant that will produce, say, cement over a long period of time, and then the cement sold and the proceeds used to repay lenders over, say, the next ten years?

3. Assess the Business Risks That Could Inhibit Repayment (Qualitative Analysis)

Different forms of credit are more common to and better suited for different types of companies. Moreover, the risk of extending credit will vary according to the business context of the borrower—industry, product mix, or lines of business—and the economic, competitive risks it is subject to. Is the company cyclical or not?

- **Nature of the business/industry**—For example, a grocery business will face different types of business risk than would an automobile manufacturer.
- **Competitiveness**—Within industries, certain firms are more competitive than others, based on product mix, types of competitors, how pricing decisions are handled, and so forth.

   - **Operational efficiency**—Does the firm operate efficient new plants and produce at competitive costs? Or is it struggling to match the output of its competitors at higher costs?

   - **Management**—The quality of the management of the company that wants to borrow is critical to risk assessment. Certain aspects of management capability are easily readable: the track record of most companies is in plain view to the marketplace, and the better a company has performed, especially in hard times, the greater must be the respect for that management.

   - **Depth of management** is as important as age levels, areas of demonstrated proficiency, previous assignments, and the percentage of equity in management’s hands. But most important is the issue of integrity. (Knowing that business results will not be contrived.)

4. Financial Analysis

After analysis of the loan’s purpose and qualitative risks, the analyst turns to the quantitative risks, or financial statements analysis. This means understanding the accounting principles used to prepare financial statements, adopting a good means of formatting financials so that they can be easily analyzed, not only for this year, but in comparison to past years. Cash flow analysis is also very important as is projecting the future growth of a company. There are, as well, a host of other techniques that are tools of the trade used to identify and analyze the financial risk inherent in a company.

In keeping with the type of credit under consideration, the analysis should be geared to determining the “debt capacity” of the firm—its ability to take on and service debt.

and list some of the important questions to be answered prior to the extension of credit.5

**Loan Structure**

The loan officer must determine the loan terms required by the bank: the interest rate, collateral, guarantees, and covenants commensurate with the loan risk. The structure of the loan should be closely linked to the anticipated repayment source and timing.

The final steps in the loan structuring process are approval, documentation, and reporting, which should be defined clearly in the bank’s credit policies and procedures.

**Credit Approval**

Commercial banks usually adopt either a committee or a sequential process of credit approval. The former requires ultimate approval of a loan or credit facility by a committee that customarily consists of members of senior management and the heads of the lending areas. The sequential process involves an approval chain of individual loan officers with ascending levels of authority to grant
credit. The loan application progresses up the chain of seniority until a sufficient level of authority has been reached to satisfy credit policy requirements.

Proponents of the committee system believe that it provides the maximum level of decision-making capability, by virtue of the combined experience of the committee's members. Advocates of the sequential system claim that the committee system does not allow sufficient time to analyze applications, several of which are presented at most meetings. Those who favor the sequential system detect a "herd" instinct in many credit committee members: they believe that committee members avoid questions that might embarrass sponsoring officers or other lending areas and tend to follow the preferences of senior members of the committee. The sequential system, say its adherents, gives the responsible officers ample opportunity to examine the loan application, ask pertinent questions, and make independent decisions.

The degree to which committee members are accountable for the loans they approve varies. In most banks, committee members signify approval by voice vote or by raising hands. In other banks, the vote of each member is recorded. Although it is unclear whether accountability generates more responsible decision-making, accountability can be attributed more easily in a sequential approval process.

The size of a bank and the scope of its operations determine the degree of centralization required in the credit decision process. As a general rule, the smaller the bank, the greater the centralization; the bigger the bank (and, hence, the wider the scope of operations, especially geographic), the greater the decentralization. Deals may be lost

### Box 3.3 Purpose of the Financing and Sources of Repayment

The five types of credit can be categorized as:

1. **Seasonal Credit**

   These credits are made available to businesses that require supplemental capital to meet their peak, short-duration needs.

   Suppliers may extend trade credit or financing to a company to allow it to purchase inventory. As the company transforms the inventory into a finished product and sells it to end users, the trade credit allows the company to finance its own sales terms or accounts receivable.

   When gaps exist between the term of the supplier financing and the collection of proceeds by the firm, bank financing may be required.

2. **Asset Conversion Credit**

   When a company has an ongoing (as opposed to, say, a seasonal) need to finance the gaps between trade credit and the collection of proceeds from the sale of its manufactured goods, the credit is referred to as "asset conversion credit." Unlike seasonal credit, in which the debt obligation is extinguished after one cycle, the cycles of asset conversion credit are ongoing and overlap, and it is hard to distinguish one cycle from the next or to identify any single asset conversion cycle.

3. **Cash Flow Credit**

   Cash flow lending represents longer-term loans, usually to industrial entities to finance the purchase of plant and equipment or to support rising levels of permanent working capital: current assets (that is, trading assets whose natural life cycles tend to be less than a year) that are not financed through short-term trade credit, and other current liabilities.

4. **Asset-based Credit**

   Asset-based credit, in its purest form, is the extension of short-term financing on a virtually permanent basis to support a high level of essentially liquid assets.

   As the bank analyzes the various components of a request for asset-based credit, it will determine whether the terms and conditions of the request are reasonable and the credit is of acceptable quality.

   But within the gamut of asset-based lending are the half-breeds:

   - Mortgage loans
   - Leasing
   - Shipping
   - Industrial credits secured (by plant and equipment)

   Asset-based credits are often secured, reflecting a conceptual bias toward the belief that the underlying assets carry a resident residual value which the market will have to transform into cash in order to pay the creditors in the event of financial distress.

5. **Project-related Credit**

   Extension of such credit combines features of both asset-based and cash flow credit.

   These five classifications do not always occur in isolation. Combinations are not only possible but may be desirable. Many seasonal and cash flow loans incorporate asset-based elements.
because of bureaucratic delays in the bank's approval process. Recognizing such business pressures, larger banks have delegated levels of credit granting authority to regional management, which in turn may delegate authority to branch management or individuals within a given branch.

In any decentralized system, lending authority at the various levels is generally determined through the recommendations of a credit policy and supervision unit and approved by senior management and the board of directors. The prudent exercise of delegated authority is monitored through reports and periodic reviews or examinations by internal auditors and loan reviewers.

The board of directors often participates in credit approval, particularly during reviews of large credits above a stipulated level, credits that represent exceptions to policy, credits that are particularly difficult or complex, or credits with significant national implications. In many banks, the board is notified about large credit approvals after the fact; in others, the board approves all large credits. Generally, credits pass through a management/technical review before they are presented to the board.

**Loan Documentation**

Loan documentation provides risk protection by enabling a bank to take legal action when a borrower fails to honor covenants or repayment schedules. The loan agreement is a contract between a bank and its borrower, specifying the rights and duties of each toward the loan or credit arrangement. Although a loan agreement does not give the lender control over a loan repayment source, it contains conditions, covenants, and restrictions calculated to maintain or improve the borrower's financial condition, earnings, and cash flow, thus protecting the bank's interests. A strong loan agreement supported by a credible legal framework provides lenders with the substantial negotiating power necessary when credits deteriorate.

Legal documentation must be reviewed, preferably by a specialized internal unit, before any loan or credit facility is signed. Specialists should also carefully examine documentation on the pledge of assets or collateral, such as appraisals. It is also important that loan documentation comply with prudential regulation, because legal lending limits on capitalization must be considered before credit can be granted to any single customer or related entities. In addition, internally established policies, such as internal lending limits and concentrations, require documentary compliance.

The proper handling of documentation is an essential element of a bank's internal controls. Though often honored in the breach, a loan should not be disbursed before all relevant documents have been received from the customer. A documentation unit should verify and safeguard documentation.

**Collateral and Guarantees**

Collateral is a tangible asset in which a bank takes a security interest. Taking collateral as loan support gives control over the asset to the bank in case of default; it becomes a potential secondary source of repayment. Market practices differ with regard

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**Box 3.4 Types of Credit Required by Different Kinds of Firms**

*Retailers*—Buy and sell finished merchandise, usually in small quantities. Except for those selling for cash—grocery stores and the like—their receivables are usually proportionately large, but fairly well diversified.

They are likely to be candidates for seasonal credits or permanent working capital credits (cash flow) to finance inventory and sometimes receivables.

*Wholesalers*—“Middlemen” in the distribution process: buy from manufacturers, and sell to retailers. They are generally candidates for seasonal or working capital credits.

*Manufacturers*—Most complicated of all profit-making processes: buy raw materials, apply labor and other expenses, and make and sell finished products, usually in relatively large quantities and at fairly high profit margins. Ordinarily require heavy investments in fixed assets, since they need plants and machinery. May require both short-term credit and longer-term cash flow financing.

*Service organizations*—Usually no inventory, and less fixed-asset investments. Operating expenses are a function primarily of salaries and wages. (Architectural firms and accounting firms.)

*Financial institutions*—Special type of service organization. Assets are loans and investments.

*Public utilities or regulated entities*—Dynamics are different from unregulated firms. Often heavy users of cash flow credit. A lender makes decisions based on cash flow that is greatly affected by regulation.
Box 3.5 Identifying Business Risk

**What Is Business Risk?**

Business risk is the risk that the company cannot complete its asset conversion cycle effectively—this may be peculiar to the firm alone or a function of the nature of the firm or its industry.

**Risks in the Operational Cycle**

**Raw material purchase**
- Is the supply of raw materials reliable? Is it seasonal?
- Is it perishable? What storage facilities are available?
- What are the transport costs for delivering the raw materials to the factory?
- Are factories located close to supply?
- Are raw materials purchased directly, or through intermediaries?
- Are environmental factors considered?
- Is there a fashion risk? What are the characteristics of the raw materials?
- Is there a foreign-exchange risk for imports?
- Are imports from a country likely to be subject to future economic or governmental restrictions?
- Is there a concentration in one or a few suppliers?

**Price**
- Is the price of the supply a potential problem?
- Can prices be volatile? May not cause the asset conversion cycle to stop, but could reduce a company's cash-generating potential.

**Production process**
- In converting materials into finished, salable products, work force is usually the primary element of risk.
  - What about availability, skill, union relations, cost?
  - How labor- versus capital-intensive is the company and industry?
- What are the age, capacity, and utilization of physical facilities? May be a critical concern in some companies and industries where there are current or prospective needs for additions and modernization.

**Sales process**
- Risks are insidious and difficult to spot as they are very much a function of product or service dynamics.
- Is the firm involved in a staple industry? How elastic is demand? Are the company’s markets cyclical?
- Does rapid technological innovation carry with it risk of obsolescence?
- Are demographics significant?
- What is the system of distribution?
- Will sales be affected by changes in social and political traditions and preferences?
- How competitive is the industry?
- What is the ease of entry? Is it subject to price wars? To lower-cost imports from foreign competition?
- Is the industry plagued by overproduction by marginal producers that enter and leave the market frequently, thereby contributing to price instability and volatility in industry earnings?

**Collection risk**
- It is not sufficient just to sell the product; the company must be paid for the cycle to be complete.
- Collection risk is most serious for companies whose principal business is creating financial assets—banks, in which assets are derived from lending money.
- What is the quality and spread of the company’s and industry’s debtors?
- Does it sell internationally? With any insurance or other form of protection?

**Regulatory Outlook for the Industry**

Can affect any of these phases.

to collateral. In most developing countries, collateral-based lending is the norm and a primary consideration in the extension of credit. In the United States, the requirement that a borrower post collateral or the guarantee of a third party generally means that the creditworthiness of the borrower is otherwise insufficient. The very need for support in the form of collateral or a guarantee implies a higher level of risk. Good credit management does not consider collateral to be a substitute for creditworthiness, which is the existence of cash flow adequate to repay the loan. In this view, collateral merely provides an additional margin of protection for a loan that is already acceptable; it is often referred to as "a second way out." Since financial analysis in many developing markets is impeded by poor financial disclosure, taking collateral is advisable. However, a security position should not render lenders complacent.

When using collateral as support, the loan officer should structure the loan so that it relates to the objective liquidation value of the collateral, which is not necessarily the value in the financial statements or otherwise represented by the borrower. It is usually less than the appraised value. Taking a security interest in collateral does not
ensure that the loan will be repaid; the forced liq-
uation of an asset frequently erodes the value of
that asset substantially. Thus, a bank should care-
fully evaluate both the market and liquidation val-
ues of collateral, as determined by an appraiser,
and should maintain current appraisals of the as-
et. Usually, the value of the necessary collateral is
greater than the loan amount, thereby covering
not only the risk that the liquidation value is less
than the assessed value, but also the unpaid inter-
est that accumulates once the loan starts deterio-
rating. Collateral value pertains to coverage, value,
and control, as shown in table 3.1.

In most legal systems, a simple agreement in
which the debtor pledges certain assets to the credi-
tor for collateral on a loan or credit facility is insuf-
ficient unless the agreement is legally recorded
with an appropriate entity. In some Middle East-
ern countries, for example, assigning the proceeds
of a project by a contractor to the benefit of its cred-
itors must be recorded within the contractor's coun-
try of domicile. Moreover, such filings will not
legally be accepted or recognized unless the
assigned proceeds are actually paid to the creditor
within that country. If proceeds are paid into a
third country, no filing can be made. Thus, filings
serve three general purposes: to identify the
pledged assets, to provide notice to other lenders
that such pledges exist, and, most important, to
protect the creditor if a debtor becomes bankrupt
or must liquidate its assets, whether voluntarily or
involuntarily.

Bankruptcy laws vary among countries, but a
typical preferential order is customarily established
for the distribution of a bankrupt company's as-
sets. For a bankrupt U.S. bank, the typical descend-
ing order of preference is employees' salaries and
benefits, taxes and utilities, domestic depositors,
other domestic creditors, foreign depositors, and
other foreign creditors.

A guarantee is an agreement by a third party to
repay a loan if the borrower does not pay. As a
source of repayment, a guarantee is only as reli-
able as the guarantor's ability and willingness to
repay. A financial analysis of the potential guar-
antor's creditworthiness is thus critical, and the
guarantor may be required to post collateral. Guar-
antees may be unconditional or conditional, for
part of the loan or for the entire amount, and, most
pivotal, by endorsement or by formal separate
agreement. The acceptability of the form of guar-
antee and the manner in which claims must be
processed are governed by the laws of each coun-
try.

Table 3.1 Evaluation of Collateral

<table>
<thead>
<tr>
<th>Security coverage, security value, loan value</th>
<th>Value</th>
<th>Control</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 100% Totally secure and marketable</td>
<td>• Under bank's control</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Documentation in order</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Counter guarantee from acceptable bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cash collateral in bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B &lt;100% Value may fluctuate, and may be hard to sell</td>
<td>• Under bank's control</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Documentation in order</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shares pledged and held by bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Valued real estate mortgaged to bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C &lt;100% Volatile value, and uncertain marketability</td>
<td>• Problems in control</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Documentation questionable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unquoted shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inventory or receivables held by bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D &lt;100% Declining value, and weak marketability</td>
<td>• Not controlled by bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Documentation problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Uncontrolled inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E &lt;100% Declining value or no value, and weak or absent marketability</td>
<td>• Not controlled by bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Documentation missing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unsupported guarantees</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unacknowledged assignment of book debts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Booz-Allen & Hamilton.
The law may require that a bank exhaust all other forms of remedy against the borrower, legal and otherwise, before making a claim against a guarantor. This is often the case with separately written agreements, whether or not the agreement itself so states. Thus, under a separate agreement, a bank could spend years in expensive litigation against the borrower before going after the guarantor. Having the guarantor cosign the loan agreement, promissory note, or other debt instrument allows the lender to proceed directly against the guarantor if the borrower defaults; cosigning is thus generally preferable to a separate agreement.

The legal systems of some countries require that some form and degree of consideration in favor of the guarantor be present to warrant the enforceability of guarantees. The borrower must generally give consideration to the guarantor. In the absence of demonstrable consideration, claims have been disallowed in these countries.

A dubious form of support sometimes offered by the parent organizations of borrowers is a “comfort” letter. These letters usually purport to assure lenders that the parent company will take necessary measures to ensure the viability of a borrower. A lender must make substantial subjective and business judgments in determining whether to accept a comfort letter as support for a loan or credit facility.

Loan Supervision

Once a loan is on the books of the bank, it must be managed actively to ensure that it is repaid. Loan management is one of the most important responsibilities of the lending officer. Good loan management can rarely overcome poor judgment in extending credit, but many good credits become problem loans because lending officers did not heed the warnings that arose over the life of the loan.

Bankers monitor the performance of borrowers primarily to reassure themselves that the borrowers continue to be in a position to honor the terms of the loan and to identify opportunities to develop new business and expand the relationship. Loan supervision requires monitoring borrowers closely to detect signs that the borrower may have difficulty in repaying the loan. Such early warnings are necessary to maximize the effect of corrective action and to minimize potential losses. Loan supervision is particularly important when loans mature or become past due, or when other terms of loan agreements, such as the minimum collateral position or required financial ratios, are violated.

Most banks review customer relationships and borrowing activities at least annually, and more often if the situation dictates. Such reviews must be initiated by the loan officer assigned to the account. In these periodic examinations, the officer analyzes the borrower’s financial situation and trends, its past performance and future capabilities in debt servicing, and its profitability and market environment; the officer then decides on the manner in which the bank should continue the relationship. Credit or business factors revealed in the periodic reviews can lead to the expansion, modification, renewal, or cancellation of existing facilities. Relationship banking implies that if an institution wishes to become or continue to be the customer’s principal bank it must always be in tune with the customer’s future business plans and financing requirements.

Lending officers use four sources of information to monitor the borrower: the bank, suppliers of the borrower, other financial institutions, and the borrower itself. An analysis of financial data alone may provide only a tentative measure of the borrower’s condition. Questions raised by figures can be answered only through discussion. Moreover, balance sheets and profit and loss statements by themselves provide little indication of management’s plans. To obtain a clear picture of management and operations, the lending officers make frequent customer visits, at which time they can verify the existence and physical condition of the plant and equipment, as well as any assets serving as collateral. The firsthand data gathered during the visit serves as a check on the quality and accuracy of the financial analysis.

Another aspect of the borrowers’ performance is its compliance with covenants in the loan agreement. In addition to the borrower’s covenants to repay the loan, other covenants are often included, such as promises to maintain minimum levels of working capital and leverage. Failure to comply with covenants may expose the borrower to penalties, such as an increase in the interest rate or, in an extreme case, outright cancellation and an acceleration of repayment. Lenders prepare and review checklists periodically to monitor compliance with loan covenants. Credit files provide important source material for loan supervision and are also a critical source of information for internal reviews, external audits, and examinations by the regulatory authorities. Recommended credit file contents include the following:

- Credit limit summary
- Security documentation checklist
• Credit approval memorandum
• Collateral evaluation
• Basic information report
• Customer profitability
• Competitive analysis form
• Account plan
• Customer visit reports
• Quarterly risk classification (where relevant)
• Financial spreadsheets
• Remedial strategy and action plan
• Cash flow projections
• Correspondence
• Management assessment
• Press clippings
• Investigations summary
• Miscellaneous support information.

Problem Loans and Work-outs

Problem loans most commonly arise from customer cash crises, although some countries afflicted with a severe lack of financial discipline have a class of delinquent borrowers, known as willful defaulters, who are able but unwilling to repay. In Bangladesh, for example, willful default was common in the late 1980s before banking regulators implemented a system to correct the practice. A cash crisis is sometimes abrupt, but it usually develops gradually. As it develops, internal and external signs of the impending crisis emerge, often subtly. Loan officers are the bank's first line of defense against credit losses; they must be able to spot early indications of a crisis and interpret them. The more the loan officer and customer interact, the more information is available on the health of the customer's business. Without constant updates of information, problem indicators may be overlooked.

Measures to prevent losses must also be taken when the loan is made. Underlying loan documentation should facilitate access to financial information; it should be prepared within definite time frames and audited by firms acceptable to the bank. Loan documents should also contain clauses that give the bank the right to examine the books of the customer or, at least, to have access to customers' explanations of the financial statements.

Early warning systems for detecting potential problem loans are difficult to design, and the human element is often a major impediment to early identification. Loan officers in charge of managing an account have been known to delay reporting danger signals because they were reluctant to expose themselves to possible criticism for having involved the bank in a problem situation. Moreover, experience has shown that, even when identified, deteriorating credits are generally worse than lending officers perceive them when they are discovered. Thus, valuable time is lost in the reaction process. An even more serious situation occurs when bank management, aware of loan portfolio problems, seeks to earn its way out of the problem by concealing it while stimulating earnings through excessive risk taking and speculation (de Juan 1987).

To prevent such occurrences, banks rely on periodic, independent, objective reviews by loan review or internal audit departments to detect warning signals that the loan officer missed or suppressed. Bank examinations by supervisory authorities also frequently detect unidentified problem loans. In an effective credit risk management process, a bank's internal control system will be the first to identify problem credits. For many banks, internal identification of problem credits is an important objective, and lending officers are penalized if deteriorating credits are identified by others. In the words of a senior credit officer of a major bank: “One hundred percent early identification of problem credits is expected” (Mueller 1976).

Warning Signs

Nonfinancial warning signs include inordinate delays in the receipt of financial statements, especially if the underlying loan agreement contains a covenant that requires delivery within a specific time frame. Customer explanations of such delays are often themselves warning signs. For example, if the customer blames the company's auditors for the delay, irreconcilable differences may exist between the customer and the auditor about how certain items should be presented in the balance sheet or about the accounting practices of the company. When differences persist, the auditor's statement might well include qualifications. Consequently, the company may switch auditors in favor of one more flexible in meeting the company's demands; such a switch might also be an indication of difficulties.

Other nonfinancial factors that may prompt the loan officer to request explanations are abrupt changes in a customer's basic business plans, unanticipated radical changes in the composition of management or the board, and unfavorable trends in the borrower's market. A customer's reluctance to provide detailed explanations of items in its financial statements can also be interpreted as non-
cooperation and a violation of the trust that should exist in bank-client relationships. In the worst scenario, a customer's reluctance might be an attempt to hide unpleasant facts. Conversely, the customer may have some justification for his or her reluctance; for example, the requested information may be necessary to the customer in guarding against competition. However, it is important that the loan officer recognize when the customer is abusing its claim that certain information is proprietary. Loan officers must exercise careful judgment when interpreting the situation and determining the extent to which the bank should persist in its request for information. Certainly, all violations of loan covenants warrant investigation. Of special significance are violations of restrictive clauses pertaining to the assumption of additional debt.

Financial warning signs may become evident in the analysis of financial statements. At this point, however, it is usually too late to avoid trouble. Financial warnings may also arise in modified borrowing practices. For example, seasonal or short-term borrowings, customarily repaid, may be rolled over continuously until they become "evergreen" facilities. Increasingly frequent requests for extensions of the loan maturity or for temporary overdrafts that exceed approved lines of credit often indicate abnormal cash flow situations. Loan terms should be congruent with the purpose of the loan. A borrower may be using short-term debt to purchase long-life capital goods because of poor financial planning or, alternatively, because long-term debt is not available—the case in many developing countries. The reason for using inappropriate financing should be investigated.

First Steps in Reaction to Potential Problem Loans

Whether the early warning signs are financial or nonfinancial, their existence should alert the loan officer to the need for action. Early identification allows time to gather the facts and develop a strategy. Because few rules are applicable to all cases, actions in treating problem credits must be appropriate to each situation. Efficient enterprises often manage slowdowns or problems. Conversely, companies in the lower tiers of their industries often face more severe recovery problems. Marginal borrowers that are losing competitiveness present the most difficult challenge, because the bank faces a serious risk of impairing the borrower further if it is unable to diagnose the problem accurately and develop an appropriate strategy. When a loan officer identifies a deteriorating credit, he or she should take the following steps:

- Analyze the borrower's problem.
- Consult with the bank units that specialize in loan recovery, with a specialized staff credit function if it exists, or with senior officers.
- Recommend adverse classification and suspension of interest accrual if warranted.
- Gather information on total institutional exposure to the borrower.
- Monitor account activity daily for overdrafts.
- Review loan documentation, guarantees, notes, collateral, and hypothecation agreements.
- Study the utility of taking security if unsecured.
- Establish a work-out plan for corrective action.

Gathering information is critical. Ideally, the customer would be the best source for such information. However, it is usually necessary to consult additional sources, such as other bankers, suppliers, and major purchasers. Gathering and interpreting information should identify underlying problems and their severity. Once this process has been accomplished, a second level of action can be determined and a plan established.

The first step in establishing a plan is to choose who will manage it. Some banks determine that the incumbent loan officer should be responsible, because that person knows the customer better than anyone else or because he or she got the bank into the situation and should thus get the bank out. Others place problem loans with a specialized work-out group, which can offer a more objective approach less hindered by the existing customer relationship. Both approaches have disadvantages that offset their advantages. Problem loans and work-out situations are time consuming and expensive. On the one hand, the time that marketing-oriented loan officers devote to work-outs could be devoted more efficiently to loan origination. In addition, the personal relationship with a customer might influence a loan officer's objectivity and propensity to take severe measures. On the other hand, officers in a specialized unit must devote valuable time to learning about the company and its industry. Banks often hand only the most problematic cases to specialized units—that is, those companies on which they have decided to foreclose and with whom no future lending relationship is contemplated. For example, one bank uses as a rule of thumb its willingness to sever the client relationship. If the delinquent borrower is a company with which the bank wants no further relationship, the problem loan is
Building Strong Management and Responding to Change

transferred to the work-out unit, which pursues loan recovery with "no holds barred." However, handling problem loans depends on the context. For economies in which a large proportion of enterprises and thus banks are likely to be restructured, the most practical solution might be to group the scarce expertise into a unit that would handle such enterprises (Sheng 1990a). These circumstances usually call for a one-time exercise—bank restructuring—rather than the more or less continuous process that commercial banks use to manage problem loans and work-outs.

Banks usually make a serious attempt to extricate borrowers from financial difficulties, but must deal carefully with financially troubled borrowers. On the one hand, banks act defensively to protect an asset and, in the process, may attempt to influence or even impose decisions on the customer’s management. Customers, on the other hand, may resent interference or, alternatively, welcome constructive advice. Legal advice is routinely sought as bank officers provide recommendations while abstaining from interfering in the borrower’s decisionmaking process.

Work-out Strategies

Each problem loan is different, and no routine is universally applicable. Some of the most common approaches to be considered include:

- Developing a debt restructuring program.
- Agreeing on additional documentation and guarantees.
- Retaining additional collateral.
- Injecting additional funds.
- Liquidating collateral.
- Liquidating other assets.
- Calling on guarantees.
- Arranging for joint venture partnership and capital contribution.
- Working with management to define problems and potential solutions.
- Developing a retrenchment program with closely monitored budgets.
- Arranging the sale of the operating company to a third party.
- Replacing management.
- Appointing key managers or consultants to work with the company on behalf of the bank.
- Injecting equity from owners or other parties.
- Arranging an out-of-court reorganization.
- Arranging a takeout by another financial institution.
- Applying a government guarantee with budgetary allocation to cover debt service.
- Taking legal action, such as calling guarantees and foreclosing, if the credit is in the advanced stage of deterioration.
- Filing for bankruptcy.

Choosing remedial strategies depends on a number of factors, some of which are outlined in box 3.6.

Asset Classification and Accounting Treatment

Potential and actual problem loans also require the application of procedures such as asset classification, loan-loss provisioning, accounting for problem loans, accounting for overdraft financing,

<table>
<thead>
<tr>
<th>Problem Areas</th>
<th>Assessment</th>
<th>Bargaining Position</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry outlook</td>
<td>Problem area can be corrected</td>
<td>Strong</td>
<td>Restructure</td>
</tr>
<tr>
<td>Borrower’s position in industry</td>
<td></td>
<td></td>
<td>• Increase collateral</td>
</tr>
<tr>
<td>Financial condition</td>
<td></td>
<td></td>
<td>• Revise repayment</td>
</tr>
<tr>
<td>Management quality</td>
<td></td>
<td></td>
<td>• Change management</td>
</tr>
<tr>
<td>Collateral quality</td>
<td></td>
<td>Weak</td>
<td>Exit</td>
</tr>
<tr>
<td>Credit requirements</td>
<td></td>
<td></td>
<td>• Sell collateral</td>
</tr>
<tr>
<td>Ways out</td>
<td></td>
<td></td>
<td>• Take legal action</td>
</tr>
<tr>
<td>Profitability</td>
<td>Problem area cannot be corrected</td>
<td>Strong</td>
<td></td>
</tr>
<tr>
<td>Specific risks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Booz-Allen & Hamilton.
### Table 3.2 Classifications for Framing Credit Policy for Managing Loans

<table>
<thead>
<tr>
<th>Classification</th>
<th>Approach</th>
<th>Organizational Unit</th>
<th>Frequency</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound</td>
<td>Maintain and grow profitable relationship</td>
<td>Business unit</td>
<td>Annually</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Weak</td>
<td>Improve security/collateral to offset weakness</td>
<td>Business unit</td>
<td>Semiannually</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Substandard</td>
<td>Restructure or exit to recover bank assets</td>
<td>Credit recovery</td>
<td>Quarterly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Doubtful</td>
<td>Exit credit to minimize loss</td>
<td>Credit recovery</td>
<td>Quarterly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Loss</td>
<td>Exit credit to minimize loss</td>
<td>Credit recovery</td>
<td>Quarterly*</td>
<td>Monthly*</td>
</tr>
</tbody>
</table>

a. The period is enforced until debt is written off and the bank gives up collection efforts.

*Source: Booz-Allen & Hamilton.*

and write-offs. Each procedure is described in the following paragraphs.

**Asset Classification.** Increasingly, banks rate credit risk for each individual credit at the time of origination. Initial ratings help banks balance risk in the loan portfolio and signal supervisory priorities. As problems arise, ratings are reclassified according to the degree of risk and the likelihood that the debt obligations can be liquidated in an orderly manner. Banks determine classifications internally, according to standards set by the supervisory authorities. To the extent that supervisory or regulatory bodies assign more stringent classifications in the course of bank examinations, bank classifications must be adjusted. Problem loans are assigned adverse ratings that may change during the work-out process to reflect the degree of the problem (see table 3.2).

**Loan-Loss Provisioning.** Once problem assets are identified, bank management should provide adequate provision for possible losses. Reserve policies often dictate establishing a general provision for the entire portfolio, plus further provisions tied to specific problem loans.

Policies on loan-loss provisioning and write-offs range from mandated to discretionary, depending on the banking system. Practices may or may not be dictated by supervisory bodies. The tax treatment of general and specific provisions varies considerably from country to country. In countries that lack rigorous asset classification standards, banks frequently manage the levels of nonaccruing loans, loan-loss provision, and loan losses in ways that undermine the validity of the banks' financial statements and lead to the accumulation of implicit losses and ultimately large fiscal costs.

**Accounting for Problem Loans.** If a borrower fails to make payment on the principal and interest in accordance with the repayment schedule, banks must decide whether to place the loan on a nonaccrual basis. In the absence of mitigating circumstances, national banks in the United States are obliged to switch to nonaccrual when either principal or interest payments become delinquent after 90 days, and all interest accrued at the time of nonaccrual must be reversed. Failing to do so would overstate income. Though this requirement is becoming increasingly accepted internationally, practices among countries continue to differ.

Nonaccrual guidelines vary among countries, ranging from a requirement that immediate action be taken when a payment is missed to discretionary action, to no action at all. The treatment of interest payments on nonaccruing loans also differs among banks and among countries. Some banks may apply an interest payment on a nonaccruing loan to income, while more conservative banks might apply the interest payment to reduce outstanding principal. Treatment also sometimes differs according to whether the borrower is in the private or public sector. In some countries, loans to public-sector enterprises are not placed on nonaccrual or provided for based on the assumption that the debt will ultimately be serviced by the state. In some countries, such treatment is reserved for debt that has an explicit government guarantee. These practices permit losses to accu-
mulate, often leading to bank insolvency and the necessity of restructuring banks at significant costs to the state budget, as well as to the crowding out of potentially viable borrowers.

**ACCOUNTING FOR OVERDRAFT FINANCING.** Overdraft financing, because of its flexibility, facilitates working capital finance. For that reason, it is widely used in both industrial and developing markets. However, the credit management of overdraft financing facilities is particularly difficult, because of the complexity of defining what constitutes timely debt service. Overdraft financing is subject to widespread abuse through the capitalization of unpaid interest, which leads to an overstatement of income, capital, and assets. The following is a suggested set of definitions for nonperforming overdrafts:

- No deposits have been made for 90 days, or such deposits are less than the interest for that period.
- The outstanding balance exceeds the authorized credit limit by any amount for 60 continuous days, or the excess amount is greater than 10 percent of the limit.
- The outstanding balance has been temporarily in debit and has not been regularized for up to 60 days. (Temporarily in debit refers to overdraft accounts that do not have approved credit limits.)
- The facility has matured or expired, and payments on it have been overdue for more than 90 days without the facility’s being renewed within that period. (Renewal requires the customer’s written request and the credit committee’s approval.)
- The authorized limit has been canceled, a legal case has been instituted, or the customer has been referred to a settlement corporation.

**Write-offs.** Write-off policies differ widely. For the most part, write-offs of bad and doubtful debts are discretionary, though in some countries they are mandatory. Banks may decide to write off a loan because collection efforts have failed or because of tax considerations. Partial write-offs may be taken in marking assets to market value. In some countries, banks defer write-offs of even severely impaired assets (but sometimes take up to a 100 percent loss provision) on the premise that a write-off either extinguishes the legal claim on the borrower to repay or makes the borrower act as though the obligation to repay no longer exists. In countries that require banks to exhaust legal action before allowing tax-deductible write-offs (such as many in Latin America), write-offs may be delayed indefinitely.¹⁰

**Organizational Structure of the Credit Function**

**Credit Policy and Supervision**

No model for organizing the credit function is appropriate to all banks. Banks normally establish major organizational units similar to those described in the following sections. In addition, banks often establish a staff credit function to oversee all aspects of the credit process, from loan origination to collection. Its responsibilities include writing credit policies and procedures; organizing a credit approval system; establishing the portfolio management function; defining loan documentation requirements; performing portfolio reviews to identify problem loans and determining the progress of their resolution; and training staff involved in the extension of credit. This staff credit function is sometimes called *credit policy and supervision*. It does not make loans.

**Lending Divisions and Branches**

Lending divisions are directly responsible for generating a bank’s principal assets—its loans. Lending divisions are usually organized along such functional lines as wholesale corporate banking, retail and consumer banking, small business, and international divisions. Each major division may be further segmented. For example, the wholesale banking division might be divided by region (local and national), size (middle market and large corporate), and industry (insurance, correspondent banks, and energy). In developing markets, lending is often undertaken through the branch network, though under certain circumstances, particularly with a concentration of large borrowers in the capital city, lending divisions are established in the headquarters office.

The management of a lending division rests with the division head. Most often, senior business development officers are responsible for a group of lending officers (often referred to as “account officers”) or for certain market segments. Lending officers make actual customer visits. As noted previously, lending officers must be both salespersons and skilled financial professionals. Business calling is an art, and most lending officers receive extensive instruction in call preparation, visit protocols and presentation, and timely follow-up after the call. The calls are important because they enable the lending officers to develop a thorough understanding of the customer’s
Managing Credit Risk

business and the market in which it operates. In addition, the customer's financial needs must be identified and a package of credit products structured to satisfy those needs. In many banks, managers review call plans before visits are made and monitor the success of the calls through reports submitted by the lending officers. As a rule, three hours of preparation are required for a one-hour call.

Senior Credit Officer

Senior credit officers, often placed at both the divisional and the executive management levels, function as credit specialists who support lending officers and management. In a consultant role, a senior credit officer will advise loan officers on the process of structuring the credit facility, as well as choosing the most suitable product. The senior credit officer will also help loan officers interpret loan guidelines and credit policies as they might apply to potential new business. When divisional loan committees exist, the senior credit officer customarily acts as chairperson. The credit-granting authority conferred upon a divisional senior credit officer ranks second or equal to that of the division head. Senior credit officers take the lead in portfolio planning by recommending levels and areas of concentration. Management has ultimate discretion in this function but depends heavily on the judgment of the senior credit officer.

Monitoring the quality of a loan portfolio is one of the primary responsibilities of the senior credit officer. The senior credit officer monitors the periodic reviews of customers and their credit lines to ensure that the reviews are performed in a timely fashion and show continuing creditworthiness. If signs of troubled loan situations appear, the senior credit officer is the first level at which the loan officer and his or her manager must discuss the problems.

Periodic appraisals of the credit competency of line officers are carried out by senior credit officers. The senior credit officer's recommendation is customarily the foundation on which decisions are based to modify the level of credit-granting authority of the individual under review.

Loan Documentation Unit

The loan documentation unit may report either to the credit policy and supervision division or to the legal department. The unit's two main functions pertain to support and control. The support function entails helping loan officers prepare documents for loans or credit facilities. Many loan documentation units are automated to the extent that, for each common credit product, a standard set of forms is developed and stored in a computer. These standard forms can be modified to reflect various legal and risk factors in more specialized transactions. Loan officers usually become knowledgeable about the documents required for recurring transactions, but if they have any doubt or question they consult with the loan documentation unit before approaching the potential borrower. Loan officers should never change standard loan documents without the consent of the loan documentation unit; seemingly innocuous clauses that borrowers want added or excluded can weaken the documentation or introduce contradictory elements that make enforcing the contract difficult.

In its control function, the loan documentation unit reviews the adequacy and completeness of the documents, confirms the signing powers of signatories, ensures conformity with board resolutions, and so on. The approval of the loan documentation unit may be required before the proceeds of a loan can be disbursed or a credit facility booked. If documentation is unsatisfactory, the sponsoring loan officer may be required to obtain the exception approval of a senior credit officer before the loan is disbursed. Monthly lists of documentary exceptions may be circulated to lending division heads, entered according to the number of days they have been on the list—that is, 30, 60, 90, and more than 90. The division heads are responsible for reviewing these lists and reporting their resolution to credit policy and loan review groups at monthly meetings.

Loan Review

The loan review division evaluates the quality of the loan portfolio independently of the originating divisions, to help identify problem credits immediately and confirm the adequacy of loan classifications assigned by lending officers. Senior management, often the bank's chief executive officer or the managing director, is directly responsible for the loan review division. Loan review must also evaluate the quality of the credit process as applied in the divisions under examination, as well as compliance with bank policy.

A good loan review division will systematically analyze the portfolio. To do so efficiently, the units often establish a minimum size of credit eli-
gible for review and a sampling methodology for others. An effective credit risk management system couples independent review with the identification of problem loans by officers. The lending officer, because he or she is in frequent contact with the borrower, should normally identify potential problems before they are discovered by others, such as the loan review group. However, it is not always possible to do so. An independent loan review system thus ensures that loan officers do not become complacent with their borrowers. Appendix 1, "Risk Asset Management Review," covers the loan review process in detail. It is a working document of a financial institution.

Portfolio Management

Many credit professionals believe that the essence of effective credit management is portfolio management. Portfolio management balances and contains overall portfolio risk by anticipating and controlling exposure in response to various markets, customers, products, credits, and operational conditions. Portfolio management is particularly relevant as banks diversify their operations, and it is closely linked with a bank's strategic planning process.

Risk Factors

As a bank develops its strategy and business plan, it must determine the risk factors and levels of risk in target markets and customer segments; the mix of credit type, credit products, and lending currency; credit extension capabilities; and loan portfolio concentration. A bank's role in the financial markets and its market strategy heavily influence its asset quality and, hence, its financial viability. Thus, the bank must have a clear understanding of the levels of risk inherent in the borrowers and projects it intends to finance and it must be able to manage the level of risk it decides to accept. The seven risk factors mentioned earlier are discussed in the following paragraphs.

Target Markets. The financial viability of a bank is little more than the financial viability of the borrowers it selects. In response to the question, "What has been the single most important and common factor contributing to bad loans in your bank," the senior credit officer of one of the largest banks in the United States answered, "Improper choice of target markets." The behavior of U.S. banks has repeatedly confirmed such observations, with losses in overconcentrated portfolios due to a herd in-

distinct for popular sectors or loan purposes, such as real estate investment trusts, energy, real estate lending, and leveraged buyouts. The selection of target markets is thus fundamental to asset quality. Target markets are generally defined by their sectoral characteristics and their geographic limitations. Often, they are further segmented by size, sales levels, or, for individuals, age or income levels. The risks inherent in each market are a critical consideration in the selection of the target market.

Geographic risk has led some banks to limit their scope of operations, defined along such dimensions as local, regional, and national, and domestic and international. Although a bank's business purpose is the primary determinant of its scope of operations, factors such as the availability of resources, the breadth and depth of staff and staff experience, and market knowledge and technological capabilities also play an important role. Thus, geographic diversification presents a dilemma; a high incidence of bad loans has been recorded at banks with inappropriately diversified portfolios, particularly those that lack managerial depth and a broad knowledge of the market. Conversely, geographic concentration has led to insolvency when correlated with a concentration in economically distressed industries. Diversification contributes to loan portfolio quality, but it must be managed professionally.

Target Customer Segments. Target customers of commercial banks are traditionally defined according to a fairly broad set of criteria. For example, the ideal customer might be an active and well-established as opposed to a newly formed venture; it might be engaged in the manufacture or commercialization of a product or service that is demonstrably marketable; and it might be well-managed, with in-depth managerial expertise, successful in carrying out its business mission, and financially sound.

However, seldom do borrowers meet this idealized profile, especially in developing markets. The selection of customers thus requires flexibility and judgment. When a high level of risk is identified, it must be mitigated through such measures as higher collateral requirements, enforceable guarantees, and higher equity investment by the owners. In developing markets where financial information is scarce and/or unreliable, recourse to such measures is essential. However, collateral and guarantees have their pitfalls, which are discussed later in this chapter.

A potential customer's creditworthiness can be compared with peers from its industry or sector. A
company whose financial structure and performance diverge significantly from those of its peers requires further analysis to determine its acceptability. A bank with sound portfolio management will identify classes of customers whose risk measures are acceptable according to each company's industry. Such measures would normally include the volume of sales, asset size, profitability standards, liquidity, and leverage ratios. Borrowers that fall below established criteria should be rejected or require special approval as exceptions to bank policy.

**Credit Type.** Credit type, which refers to the form in which a bank will grant credit, is determined in response to market and customer needs, the regulatory framework, the scope of operations, and the availability of professional expertise. The various credit types contain different levels of risk. Thus, credit type and structure should be appropriate not only to the needs, but also to the creditworthiness, of prospective borrowers. In industrial countries, the typical credit menu offers short-, medium-, and long-term loans; unsecured and secured loans; transactional, or lines of, credit (overdraft facilities); seasonal or permanent working capital; consumer, retail, wholesale, commercial, industrial, or project loans; revolving credit, straight-line amortization, or a combination; direct or participatory loans; on- or off-balance-sheet credit; fixed- or variable-rate loans; and domestic or foreign currency. In developing countries, this menu is more restricted, but it tends to expand when financial liberalization takes place.

**Credit Products.** Credit products are the media through which the various credit types are offered. They include loans and lines of credit for the following:

- Real estate development and construction for residential, commercial, and industrial projects.
- The acquisition of capital goods, plant, machinery, and equipment.
- Import, export, and pre-export products.
- Seasonal loans for agriculture.
- Dealer financing for automobiles and boats.
- Inventory.
- Receivables, discount, or loans against factoring (purchase of book debts).
- Mortgage financing.
- Bridge financing.
- Documentary letters of credit (sight and usance).
- Guarantees and standby letters of credit.
- Currency and interest-rate swaps and options.
- The purchase and sale of foreign exchange.
- Leveraged buyouts.

A lending officer must know what credit types and products are available to meet customer needs, because structuring the loan appropriately to the borrower's expected cash flow is essential to loan recovery.

The importance of a proper loan structure should not be underestimated. In some developing countries, bank regulators or the central bank determine the credit structure: loan tenor, periodicity of amortization, and interest rate. Such standardization often leads to an accumulation of arrears, because it often does not take into account the capacity of particular industrial sectors or projects to generate cash flow. The loan structure should correspond to the purpose of the loan and must thus be flexible.

**Lending Currency.** The mix of lending currency is a particularly sensitive topic for banks in developing markets. Often, the domestic currency is subject to volatility and sometimes to abrupt devaluation. In many of these markets, hedging instruments are unavailable to banks or enterprises. Thus, foreign-exchange risk threatens asset quality. A borrower that lacks foreign currency receipts or hedging opportunities and that takes a loan denominated in foreign currency represents a potentially serious credit risk to a bank if the domestic currency is devalued.

**Credit Extension Capabilities.** Credit extension capabilities differ among banks and depend on the expertise of the lending officers and credit staff. Some banks are better than others at managing a high level of risk. A bank should undertake the riskier forms of lending only if properly prepared for the market. Often, such preparation requires expertise in structuring security arrangements and undertaking asset-based financing. Both require a supportive legal framework.

**Loan Portfolio Concentration.** A bank mitigates the risks of concentration in its loan portfolio by constantly assessing its exposure to all forms of risk. Lending risk can take many forms, including creditworthiness, cross-border, interest-rate, regulatory, foreign-exchange, funding, trading, environmental, legal, geographic, sovereign, commercial, operational, political, commodity-market, and fraud. Management is responsible for determining both the type and volume of risk it is willing and able to undertake in the course of business. Limits should be established to govern the level of risk exposure acceptable in given business segments. The consequences of not establishing such limita-
tions can readily be seen in recent banking crises in the United States in the energy, agricultural, and real estate sectors.

There is no rule of thumb for setting sectoral-exposure limits. However, many banks overlook prudence by concentrating excessively on temporarily fashionable sectors. For example, in the past decade, U.S. banks have been particularly vulnerable to such temptations. Petrodollar recycling, real estate loans, energy loans, and leveraged buyout financing all at one time appeared to be loss-resistant based on market fundamentals. Unfortunately, all of these sectors subsequently threatened bank earnings. Sectoral overconcentration is difficult to avoid, and hence particularly prevalent, in economies that depend heavily on a few sectors and commodities. The limit-setting process must be flexible and, more important, forward looking. Its basis is market research, forecasting, sensitivity analysis, sound judgment, and in-depth experience. Contingency plans must be established for adjusting risk positions. Table 3.3 presents an example of portfolio limits. The numbers reflected in the table are for illustrative purposes only.

Risk-concentration limits vary among banks and regions. Experience in certain market niches might permit a higher level of risk concentration in a particular region or sector. Depending on the country, regulators may also set specific limits on sectoral risk exposure, though this is rare. In most countries, government supervisors will at least question a bank's inordinate sectoral risk exposure.

Good portfolio management requires monitoring all types of exposure constantly: geographic and sectoral, by borrower and by groups of borrowers. Exposure reports should be prepared monthly. The primary objective is to avoid undue risk concentrations through diversification.

**Risk Underwriting Standards**

In judging loan requests, lenders do not have an infallible set of standards. Standards have been geared variously to collateral, the balance sheet, cash flow, capitalization and leverage, tenor, purpose, and sectoral niche. Currently, U.S. lenders favor risk standards set according to the borrower's cash flow, reasoning that loans must be repaid in cash, in the currency of the loan, and at the geographic domicile of the lender. Thus, standard practice includes assessing a borrower's ability to generate sufficient cash to repay the debt without harming its business or eroding its capital base. Nevertheless, cash flow lending depends heavily on reliable financial statements, a relatively stable economy (which permits a degree of confidence in financial projections), and good knowledge of the customer. In Morocco, as in other developing countries, lenders rely heavily on collateral, particularly on personal property. This preference is based on the premise that a lien on an individual's property exerts a heavy moral obligation to find the funds to repay. Although in many developing countries lenders rely heavily on collateral, the legal limitations often prevent a lender from seizing and liquidating collateral to satisfy debt obligations. Table 3.4 presents an example of a structured approach for establishing risk acceptance criteria.

The loan portfolio should grow against a backdrop of careful risk assessment and must follow the bank’s strategic objectives. Although asset growth is an indicator of a bank’s performance, it cannot be viewed separately from an assessment of the quality of earnings. In fact, rapid asset growth may be less a cause for rejoicing and more an indication that intense pressure to acquire interest-earning assets has caused those responsible to stretch credit standards and weaken capital ratios.

When assets are growing rapidly, inappropriate relationships between the lender and the borrower may be an issue. Is there evidence of interlocking directorships, or is the bank an equity holder in its customers? Are the customers equity

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**Table 3.3 Suggested Portfolio Limits in Terms of Stated Capital and Reserves**

<table>
<thead>
<tr>
<th>Lending area</th>
<th>Range (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One company</td>
<td>10 – 20</td>
</tr>
<tr>
<td>One group</td>
<td>25 – 50</td>
</tr>
<tr>
<td>One industry</td>
<td>50 – 100</td>
</tr>
<tr>
<td>Related industries</td>
<td>200 – 500</td>
</tr>
<tr>
<td>Business segments</td>
<td>1,000 – 1,500</td>
</tr>
<tr>
<td>Long-term loans</td>
<td>500 – 600</td>
</tr>
<tr>
<td>Contingent liabilities</td>
<td>600 – 700</td>
</tr>
<tr>
<td>Capital/assets target, 1992</td>
<td>4.6</td>
</tr>
</tbody>
</table>

a. Group refers to several companies that are owned or controlled by one party.
b. Related industries refers to industries that are mutually dependent or share the same risk characteristics (for example, tourism and hotels).
c. The segments include corporations, government, the middle market, and so on.
d. The target is based on the strategy.

*Source: Booz-Allen & Hamilton.*
holders in the bank? Is the bank providing some customers with an undue amount of debt capital? In one example, a bank established the largest loan portfolio of any bank among its local peers only five years after its founding. Later, it was discovered that no less than 45 percent of its loans were to related firms.\textsuperscript{13} Thus, size does not always indicate quality or competence. In addition, in countries that use overdraft lending for working capital finance, distress borrowing often leads to the capitalization of unpaid interest. Interest capitalization causes a rapid growth in bank portfolios and an overstatement of bank income and capital. When asked, “What is an early warning indicator that a bank may become insolvent?” a prominent banking regulator replied, “Growth well in excess of its peers.”

Risk underwriting standards have been subjected to enormous pressure in light of the rapid and dramatic changes in the banking industry over the past decade. The 1980s have produced marked changes in banking philosophies and credit standards in many countries. Changes in the banking industry have been a response to technological developments, new financial concepts and products, the deregulation of markets, and competition. Faced with diminishing interest spreads on loans, commercial banks are urgently seeking other forms of revenue. For example, many banks make loans with the intent of selling them to earn loan-processing fees (rather than keeping them to earn interest income), and insurance and merchant banking activities have become the favored areas of strategic focus in many financial centers.

<table>
<thead>
<tr>
<th>Target market</th>
<th>Company performance criteria</th>
<th>Credit structure requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attractive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing manufact.</td>
<td>Minimum sales</td>
<td>Maximum term of 5 years</td>
</tr>
<tr>
<td></td>
<td>Minimum assets</td>
<td>Collateral equal to 120 percent of loan value</td>
</tr>
<tr>
<td></td>
<td>Minimum net income/sales of 7 percent</td>
<td>Minimum return on assets on relationship of 1 percent</td>
</tr>
<tr>
<td></td>
<td>Minimum current ratio of 1.5:1</td>
<td>Maximum inventory of 120 days</td>
</tr>
<tr>
<td></td>
<td>Maximum leverage of 2.0:1</td>
<td>Minimum documentation requirements</td>
</tr>
<tr>
<td></td>
<td>Minimum of 3 years in business</td>
<td>• Owner guarantees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insurance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Standard accounting documents</td>
</tr>
<tr>
<td>Food processing</td>
<td>Minimum sales</td>
<td>Maximum term of 3 years</td>
</tr>
<tr>
<td></td>
<td>Minimum assets</td>
<td>Collateral equal to 130 percent of loan value</td>
</tr>
<tr>
<td></td>
<td>Minimum net income/sales of 4 percent</td>
<td>Minimum return on assets on relationship of 1.5 percent</td>
</tr>
<tr>
<td></td>
<td>Minimum current ratio of 1.0:1</td>
<td>Maximum inventory of 20 days</td>
</tr>
<tr>
<td></td>
<td>Maximum leverage of 3.0:1</td>
<td>Minimum documentation requirements</td>
</tr>
<tr>
<td></td>
<td>Minimum of 3 years in business</td>
<td>• Owner guarantees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insurance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health inspection certificate</td>
</tr>
<tr>
<td><strong>Unattractive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotels</td>
<td>Minimum sales</td>
<td>No term loans</td>
</tr>
<tr>
<td></td>
<td>Minimum assets</td>
<td>Collateral equal to 200 percent of loan value</td>
</tr>
<tr>
<td></td>
<td>Minimum net income/sales of 2 percent</td>
<td>Minimum return on assets on relationship of 2 percent</td>
</tr>
<tr>
<td></td>
<td>Minimum current ratio of 2.0:1</td>
<td>Occupancy rates of at least 60 percent</td>
</tr>
<tr>
<td></td>
<td>Maximum leverage of 0.8:1</td>
<td>Minimum documentation requirements</td>
</tr>
<tr>
<td></td>
<td>Minimum of 5 years in business</td>
<td>• Owner guarantees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insurance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health inspection certificate</td>
</tr>
</tbody>
</table>

Source: Booz-Allen & Hamilton.
New credit underwriting standards may evolve as banks modify their traditional lines of business. In good portfolio management, the bank will have anticipated any modification of business activities and will have policies, controls, and monitoring mechanisms in place before introducing new lending products.

A great deal of portfolio reshuffling has already taken place as affected banks attempt to balance risk factors in response to the new international accord on risk-adjusted capital asset ratios issued by the Committee on Banking Regulations and Supervisory Practices of the Bank for International Settlements. Banks are sacrificing portfolio size in a shift toward credit quality; they are moving loan and credit facilities off the balance sheet, and asset-based securities are proliferating. Risk modification and capital adequacy are not the only driving forces behind these changes; the generation of fee income in an environment of declining spreads and an increased emphasis on profitability as expressed by return on assets are also prominent.

Insider Abuse and Off-Balance-Sheet Risk

Credit management must also consider two factors whose control is assuming greater importance in banks throughout the world—insider abuse and off-balance-sheet risk. To limit the potential for fraud and abuse, most credit policies require that a lending officer abstain from participating in the credit approval process if the officer is directly related in any way to the potential borrower. Many countries have also established guidelines for loans by a bank to its own officers. Another type of insider abuse involves the use of insider information. For example, bank officers frequently gain confidential information about a customer as they evaluate loans; this information may affect the value of the stocks or bonds issued by the customer. The abuse occurs when bank officers trade the securities before the information becomes public. Until recently, banks have had few, if any, internal controls to prevent insider trading. However, such controls are now becoming more prevalent.

Off-balance-sheet items carry credit risk. Depending on regulations, which vary by country, the items may be listed in a bank's financial statement with varying degrees of specificity, or they may be disclosed only in a brief footnote. When shown, they are customarily displayed "below the line" and are referred to as "memo accounts" or "contra accounts." Off-balance-sheet items include documentary or standby letters of credit; firm, undrawn commitments to lend; third-party guarantees; interest-rate or currency swaps; repurchase agreements; foreign-exchange contracts; options and futures contracts; and bid, performance, and advance-payment bonds.

Off-balance-sheet credit products are firm or contingent commitments that produce fees. Because they are off the balance sheet, they represent a positive contribution to the return on assets and the return on equity. Until disbursements are made against them, they require no funding.

Beginning on January 1, 1993, banks in signatory countries of the Basle Agreement will be subjected to the risk-based capital standards set forth in the agreement. By that date, all off-balance-sheet activities must be included in the calculation of capital-adequacy ratios through a risk-conversion process. (This risk-conversion process is described in chapter 4 "Financial Management.") Thus, the optimal use of capital is becoming a prime reason that banks are reviewing the profitability and risk of each product service with scrutiny. The analysis and management of off-balance-sheet credit risk requires attention equivalent to that devoted to loans. In light of the forthcoming change in standards, the pricing of credit products, including off-balance-sheet activities, must be reevaluated and will probably increase, and the risk and reward factors must be recalculated.

Pricing Commercial Loans and Other Credit Products

The rapid development of new financial instruments has made pricing loans and credit products especially complex. As new credit products are introduced, especially those traded in the capital markets, new pricing mechanisms are required. While the old standards may still serve as a core, they must be modified and new standards added to them. The factors that have made pricing more complex include competition from both bank and nonbank providers of credit, a diminishing level of customer loyalty, the availability of new instruments, less expensive ways for customers to access credit markets, and changes in risk definitions. Traditional pricing of commercial loans has customarily involved a contractual interest rate, fees, and compensating balances. Some commercial banks continue to structure their process along these lines, especially in less sophisticated markets.
The term prime rate originally signified the rate of interest charged to a bank’s most creditworthy customers. Legal implications, especially in the more sophisticated markets, effected a shift to the term base—that is, a base around which pricing varies primarily as a function of risk. As risk increases, premiums are added to the base rate, and certain factors, to be discussed later, may cause a bank to lend at rates below base.

Interest rates may be fixed for the term of a loan, or they may float in response to changes in the bank’s base rate or in other market rates, such as an interbank rate. The decision to apply either a fixed or floating rate to a given loan depends on the view of both the borrower and lender about future rates. The more sophisticated borrowers have many ways to hedge, or neutralize, rate risk. In general, however, banks prefer floating rates for term loans, and borrowers prefer fixed rates.

The interest factor is an important element to borrowers in determining ultimate costs, whether for expanding a plant or implementing new product lines. Fixed rates enable borrowers to know interest costs in advance, thus enabling them to cover costs through their product pricing. Although a properly hedged, or neutralized, floating rate may support cost-planning requirements, hedging adds to ultimate interest costs. Hedging is a form of insurance, and insurance coverage involves premiums or fees.

Determining loan yields commonly entails estimating the portion of the loan to be used by the customer. A customer may be expected to use, say, an average of 75 percent of its line of credit and to use 100 percent of its straight-term loans, even if disbursements of the latter are staged during the early period. In setting interest rates, some banks apply the concept of the marginal cost of funds, also known as “opportunity cost pricing.”

The Marginal Cost of Funds. The widespread use of the marginal cost of funds in the pricing of financial instruments and in profitability analysis derives from the presumption that banks can borrow or lay off funds in the money market at will. Thus, a bank with a low-cost core deposit base would theoretically have an opportunity cost to placing these low-cost funds in low-yielding financial instruments, as opposed to placing them in the market, should market rates be higher than low-yielding financial instruments, such as fixed-rate mortgages. While the application of this theory may currently be limited in many developing financial markets, it is likely to become increasingly relevant as these markets evolve, expand, and diversify and as banks in those markets seek to maximize profits.

Marginal cost is probably a familiar concept to most readers of this chapter. Nonetheless, a brief discussion of the theory and its applicability to the analysis of loan pricing, banking operations, and profitability analysis is useful. The reader will note immediately that the relevance and applicability of the marginal-cost concept correlate closely with market conditions. Its inception into banking practice, as described below, supports this observation.

In the preface to a paper published by Citicorp in 1974 entitled “Valuing Your Money Inventory,” Walter Wriston, then Chairman of Citicorp, asserted: “In the financial services business, our inventory is money, and in our business we can survive and prosper only if we take the same interest in how our own inventory is valued as we do in those of our customers” (Kelly 1974). The paper was published at a time when large U.S. banks such as Citibank were funding their asset growth increasingly through such market-based funds as negotiable certificates of deposit, and interbank markets were experiencing rapid development. Thus, a bank’s stock of funds was taking on a new significance, somewhat akin to that of an inventory for a productive enterprise, and banks were beginning to match costs with revenues by using LIFO, or last in first out, costing of funds.

In those evolving money markets of the 1970s, the absence of severe market disruptions allowed banks in good financial standing to borrow or lend funds readily at the marginal rate. For our purpose, the marginal cost of funds can be defined as the price of the least expensive source of funds that can readily be obtained in the open market. In practice, this source turns out to be the most expensive of the funds normally available in a free market. If any cheaper source were usually readily available on the same open market, that source would normally be exhausted before more expensive funds would be purchased.

Pricing Financial Instruments. Extending the inventory analogy, many banks in the 1970s began to set their interest rates on loans by calculating the spread over the marginal cost of funds necessary to ensure a desired return on equity capital. At this time, risk-adjusted returns were not actually calculated on a loan-specific basis, though an estimated loan-loss provisions expense was included in the amount allocated to cover operating
expenses. This amount differed by the type of borrower and/or by market segment. Box 3.7 presents an example of such a calculation.

The formula could be modulated to make loan pricing more flexible by considering the earnings value of demand balances or fees. For example, if the customer agreed to maintain balances of 10 percent of the loan amount during the life of the loan, the interest rate on the loan could be reduced by one percent and the earnings on the loan could be maintained.

Fees

Banks are focusing increasingly on fee generation as they strive to improve their return on assets and equity. To earn a fee, a bank need not necessarily book a continuing asset. To the extent that it can earn fees without increasing assets, a bank’s return on assets (a key indicator of financial performance) will improve.

Banks charge a fee for making a firm commitment to lend, and such fees are customarily related to unused portions of the loan. In straight-term loans, for example, a customer may be permitted to make partial drawdowns during an availability period, up to the total loan amount. The undrawn amount is subject to a commitment fee, usually about 0.5 percent per year.

A bank may also collect loan origination fees, especially if the bank plans to sell the loan. If the bank sells the loan outright, it generally retains all or most of the fee. If it moves the loan off its balance sheet by selling risk participations, it continues to act as the lender of record and as the loan-servicing bank. As such, it may charge a fee to the participating institution. Such fees supplement the possible retention of some portion of interest, even though the bulk of the interest may go to the participant.

The move toward fees has been encouraged by the customers themselves. Corporate treasurers at one time agreed to leave, say, 5 percent to 10 percent of the face value of a loan on deposit with the lender in an interest-free account as part of the bank’s loan-pricing package. Compensating balances customarily served two purposes: to increase the yield of credit operations by reducing funding costs, and to compensate the bank for what were once free services. Such practices led banks to bill the customer periodically when balances were insufficient to support the credit function, the service function, or both. In the process of negotiation, corporate borrowers would instead offer to pay fees for services that had previously been free. In countries with high reserve requirements, compensating balances increase the cost to customers by more than they increase the yield to the bank. Thus, charging the customer directly through the interest rate is more efficient and cost-effective for both. A pricing concept called “unbundling” caused banks to reassess the values of services. Almost every service performed by a bank today entails a fee because of unbundling, deregulation, and pressures to improve income ratios.

### Box 3.7 Calculating Loan Pricing

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>In percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital-to-asset ratio</td>
<td>8.00</td>
</tr>
<tr>
<td>Desired return on capital</td>
<td>15.00</td>
</tr>
<tr>
<td>Marginal cost of funds</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>Required spread</strong></td>
<td></td>
</tr>
<tr>
<td>Spread x 1 = .08 x .15</td>
<td></td>
</tr>
<tr>
<td>Spread = 1.20</td>
<td></td>
</tr>
<tr>
<td><strong>Cost of funds</strong></td>
<td></td>
</tr>
<tr>
<td>Marginal cost of funds</td>
<td>10.00</td>
</tr>
<tr>
<td>- Earnings value of capital</td>
<td>.80</td>
</tr>
<tr>
<td>= Cost of funds on loan</td>
<td>9.20</td>
</tr>
<tr>
<td><strong>Pricing components</strong></td>
<td></td>
</tr>
<tr>
<td>Cost of funds</td>
<td>9.20</td>
</tr>
<tr>
<td>+ Operating expenses</td>
<td>.50</td>
</tr>
<tr>
<td>+ Taxes</td>
<td>.50</td>
</tr>
<tr>
<td>= Total expenses</td>
<td>10.20</td>
</tr>
<tr>
<td>+ Required spread</td>
<td>1.20</td>
</tr>
<tr>
<td>= Loan rate</td>
<td>11.40</td>
</tr>
</tbody>
</table>

### Market-pricing Trends

In today’s commercial banking environment, the sale or participation of loans is a highly focused strategy. Its success or failure may well be determined by the extent to which pricing is tied to the market. In turn, the projection of market conditions affects the content of loan documentation. Loan documentation is increasingly being structured to provide the highest degree of pricing flexibility. Under certain conditions, a prime-based loan may be switched to some other base, say, certificates of deposit, Treasury bills, or money market rates. Banks may offer pricing rewards as an incentive for borrowers to improve working capital or leverage ratios; conversely, they may impose penalties for the deterioration of these ratios by charging higher...
premiums over the base rate or of asset-based financing by reducing advance rates.

Technological advances have made databases available to bankers for tracking market-pricing trends. Such databases can be constructed in-house or purchased. Software available in the form of matrix patterns can value a single potential loan according to a credit product and customer profile. Other software, in the form of the matrix concept, can support marking to market exercises. Banks may use marking to market activities for many purposes, but they use them primarily to price individual deals and to price revolving portfolios. Portfolio revaluation should be performed at least twice a year. It will identify overpriced and underpriced loans, as well as those that are right on target. In overpricing situations, a bank should consider easing the customer’s debt-carrying costs, depending on the bank’s level of interest in developing a customer relationship. Loan documentation might be amended to specify a base rate that will lower the customer’s costs.

Marking to market will identify the underpriced assets or segments of a portfolio. Obviously, rectifying underpricing is a significant challenge to a bank. How would one convince a corporate treasurer to increase the corporation’s funding costs when existing loan documentation does not require such action? Could additional noncredit services be sold to create offsetting fee income? Can the bank attempt to average out by overpricing future deals? Can the bank successfully appeal to the customer’s sense of fair play, or demand flexibility? Should the bank push for compensating balances? Here is where the level of the account officer’s expertise becomes highly visible, both in creating innovative options and in negotiating the options.

Marking to market is also a significant consideration when a commercial bank acts as a customer’s house bank. The term house bank implies that as the customer and its needs grow, so must the house bank’s ability to accommodate the customer. Even if the customer’s growth outstrips the bank’s capabilities, the bank must respond positively to maintain the house bank relationship. If, for example, a major plant expansion requires a loan that exceeds the bank’s legal lending limits, the bank must consider asking its correspondent banks to commit to participating in the financing. Preselling participations allows the bank to service its customer while conforming to its own lending limitations. Such “overline” situations may be addressed on a case-by-case basis, or the bank may have already entered into an agreement with another bank or group of banks for such participations, usually on a discretionary basis without firm commitments. Whether a correspondent will buy a deal (choose to participate) usually depends on whether the originating bank has a good track record of generating creditworthy transactions, the borrower has a good credit record, the transaction “makes sense,” and the pricing package is marked to market.

Commercial Loan Systems

Banks in developing markets sometimes develop, but usually purchase, software systems to track information and carry out the operational aspects of lending. A commercial loan system (CLS) provides a wide menu of information, ranging from types of credit facilities, new commitments, and pricing factors to the basis for interest calculations, past dues, and so on. A CLS can display all loan-related input components to enable management to track exposure by geographic area, industry, the type of loan, the term of the loan, total borrower risk, and the type of pricing. A CLS also facilitates actual loan operations—calculating interest and fees, billing customers, tracking and billing principal repayments, monitoring payments of principal and interest, and changing interest factors in response to rate fluctuations. The division responsible for funding the bank accesses the CLS to monitor undrawn commitment levels, thereby anticipating funding requirements. A CLS may also serve a central customer liability function to enable loan officers, loan documentation units, and others to check the status of credit lines whenever a customer asks for an advance.

The quality of the output of a CLS is critical to management, and it depends on its input. Thus, “how to” manuals are necessary to specify the procedures to be followed and the codes to be used in filling in the various boxes of the input forms. To ensure high-quality input, the loan operations group reviews all new data in the CLS within a day after they are input to check their completeness and accuracy before they are entered into the system.

Training

Many new banking institutions or those undertaking major institutional reforms initially buy competence in the form of experienced officers with proven capabilities. Recent university graduates are hired as management trainees and are intro-
duced to lending activities in stages under close supervision. In most developing markets, this pattern is restricted by the scarcity of experienced bankers. For this reason, the World Bank has devoted a sizable effort to establishing training institutions. Chapter 5 discusses the activities involved in training bankers in developing financial markets.

Credit training should be the responsibility of the credit policy and supervision division. Training is conducted by experienced officers with expertise in training. The credit policy and administration division determines the subject matter. Sectoral specialists are drawn from their respective divisions to provide lectures and case studies. The initial training consists of classroom lectures and exercises with abundant homework for three to four months, during which time trainees learn how to perform computerized financial-statement analyses and calculate relevant ratios. A background in financial accounting is a prerequisite for this type of training in credit analysis.

The second training phase consists of live-statement analysis. Trainees work alongside professional credit analysts and lending officers. All work performed by trainees is checked by supervisory analysts and reviewed by lending officers. By nature, the credit-analysis function is objective. It assesses a borrower’s financial situation as of the statement date, identifies the reason for any changes since the previous statement, compares the borrower with its peers, and makes projections. These analyses help lending officers reach credit decisions.

Trainees should accompany lending officers on calls to customers; indeed, many banks consider this element an essential part of the training program. The benefits of bridging the gap between remote, objective analysis and the ability to extract subjective information from a personal visit can be substantial. Following the formal training period, credit trainees are assigned to lending divisions under the supervision of more experienced officers to carry out support functions and to develop training skills further. Gradually, they are trained in business development and customer-calling skills and activities.

In the constant effort to maintain or improve the quality of staff, banks identify individuals with great potential and offer them further in-house or external training, education, and promotion. Banks are also constantly searching for talented individuals at other institutions and offer incentives for them to switch their allegiance. Human resources are the essence of banking, and successful banks recognize that a well-qualified, highly motivated staff is the foundation of a successful financial institution.

**Conclusion**

This overview of the credit risk management process has been written in a period of volatile change. Moreover, the customs and practices of bankers and the structure of banks and banking systems differ around the world. Thus, the chapter must be read in recognition of many uncertainties and variations.

The structure, size, business purpose, and operating environment of the universe of commercial banks are diverse. Banks may be highly automated and sophisticated, or they may be labor-intensive and offer limited products and services. Their staff members may use personal computers, or may still wear green eyeshades and perform all calculations manually. Branches may range from two or three persons operating out of a Land Rover to autonomous full-service units employing hundreds of people and providing retail customer service through automated teller machines.

With such differences in mind, the elements stressed here are broadly applicable, though probably not entirely applicable to a particular bank. However, these are the elements that banks should consider in establishing or evaluating the credit-granting function. Each bank will of course tailor its lending to its own needs and capabilities for providing the credit products and services required to serve the market in which it operates. Nevertheless, all banks should structure their lending activities with certain principles in mind:

- That the purpose of the loan make sense.
- That the bank acquire an in-depth knowledge and understanding of a borrower’s capabilities and capacities, as well as its business and the market environment in which it operates.
- That the bank have a reasonable expectation that a loan can be repaid in cash within a specified time frame.
- That the bank have a back-up position or second way out if a primary borrower runs into difficulties in fulfilling its obligations.
- That the character of a borrower be above question, whether an individual or a business entity.

If the borrower is a bank, its capital should be sufficient, its liquidity position should be comfortable, its management should be sound, and its
level of risk exposure in portfolio composition should be within acceptable norms. In addition, the bank should show positive trends in its earning power; its accounting practices, especially income recognition and its treatment of problem loans, should be understood, and its customer profile should be acceptable, without excessive concentrations in a small number of customers, especially if intercompany and bank relationships exist by virtue of equity or interlocking directors.

Banking institutions should closely examine their credit management and undertake institutional development programs to remedy any deficiencies for both selecting and managing credit risk. It is hoped that this chapter will serve as a useful frame of reference. The chapter is followed by three annexes, consisting of questionnaires that may be used by bank supervisors or by bank analysts as checklists to evaluate a bank's credit risk management process. Bankers may also use the lists as they endeavor to strengthen their institutions.\textsuperscript{15}

Annex A: Portfolio Management Evaluation Procedures

The evaluation begins with information gathering.

1. Request reports on the following:
   a. Past-due loans. The 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.
      The report 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 delinquent payments.
   b. Loan commitments and contingent liabilities.
   c. Loans secured by the stock of other banks and the rights, interests, or powers of a savings and loan association.
   d. Extensions of credit to employees, officers, directors, and principal shareholders and their interests.
   e. Extensions of credit to officers and directors of other banks, and to the principal shareholders of correspondent banks.

2. Obtain the following on 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 administers the lending function.
   c. Copies of reports furnished to the board for its meetings.
   d. Lists of directors, executive officers, and 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 the following:
   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 authority 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 the 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
Building Strong Management and Responding to Change

material inconsistencies:
  - The past-due loan schedule received in step 1.a.
  - Delinquency reports submitted to the board.
  - List of loans considered to be “problem” loans by management.
  - Delinquency lists submitted for regulatory purposes.

b. Scan the delinquency lists submitted to the board, to determine whether reports are sufficiently detailed to evaluate risk factors.

c. Compile current aggregate totals of past-due paper.

6. In discussions 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.

7. In discussions with appropriate personnel and with the possible use of flowcharts, organizational charts, observation, investigation, and so forth, analyze the operation of the overall internal loan review process. Determine:
   a. The method of loan selection.
   b. The manner in which the loan is analyzed.
   c. The type of report generated.
   d. The use of results by appropriate bank personnel.
   e. Whether 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.

Annex B: Credit Risk 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 appropriate narrative descriptions, flowcharts, copies of forms used, and other pertinent information.

1. Has the board of directors adopted written loan portfolio management policies and objectives consistent with its duties and responsibilities that:
   a. Establish suggested guidelines for categorizing commercial, real estate, and installment loans?
   b. Establish geographic limits for loans?
   c. Establish suggested guidelines for aggregate outstanding loans in relation to other balance-sheet categories?
   d. Establish the lending 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 the 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 whether 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 their inclusion)?
   b. Notes on which interest only is past due (if
so, indicate the minimum days past due for their inclusion)?

c. Term loans on which one installment is past due (if so, indicate the minimum days past due for their inclusion)?

d. Total outstanding loan commitments?

e. Loans requiring special attention?

f. New loans and loan renewals or restructured loans?

4. Are the reports that are 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 the submission of audited financial statements based on the amount of the commitment?

11. Does the bank perform a credit investigation on proposed and existing borrowers for new loan applications?

12. Are all loan commitments required to be made in writing?

13. Are lines of credit reviewed and updated at least annually?

14. Are borrowers' outstanding liabilities checked to determine appropriate lines of credit prior to granting additional advances?

15. Does the bank use a procedure for the 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. Does the bank have 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. Reexamines notes for proper execution, the 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 the liability ledger to determine that new loans have been posted accurately?
   
   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 section independent of the lending function?

19. Are the initial results of the loan review process submitted to a person or committee that is also independent of the lending function?

20. Are all loans that exceed 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. Are an officer identification system and guidelines in effect that define the consequences of an officer's withholding a loan from the review process?
25. Is the bank's problem-loan list updated periodically 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: Questions 17 through 29 pertain to step 17 of Annex A, "portfolio management evaluation procedures.")

30. Are officers and employees prohibited from holding blank signed notes in anticipation of future borrowings?

31. Are paid and renewed notes canceled and returned promptly 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 a backup system in place for notes?

35. Is a systematic and progressively stronger follow-up notice procedure used 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 industries to which it is a substantial lender?

40. Conclusion: Is the foregoing information considered an adequate basis for evaluating internal control? That is, are there no significant additional internal auditing procedures, accounting controls, administrative controls, or other circumstances that might impair any controls or mitigate any weaknesses indicated above?

Annex C: Credit Culture Checklist

Though credit culture is a somewhat obscure concept, it is considered to be a determinant of asset quality. This rather widely used term seeks to define the sum total of a bank's approach to managing credit risk, including business strategy, credit policy, shared assumptions about credit, the effectiveness of communications, and the composition and quality of the resulting loan portfolio. If one were to attempt to understand a bank's credit culture, the questions listed below would be helpful to ask. (This annex is taken from Mueller 1988.)

Portfolio

- While aggregates are not necessarily comparable between banks, what, in general, is the peer position of the portfolio, and its strengths and weaknesses?
  - Are quick market thrusts evident?
  - Is there ample diversification? What if a large borrower, an industry, or other segment to which the bank lends founders? Does diversification also exist by geography, currency, tenor, and product?
  - How often is the portfolio reviewed?
  - Does the management information system meaningfully reflect the organizational configuration and portfolio composition?
  - How sensitive are loan officers to business, industry, and country cycles?
  - Do loan officers display an institutional memory of past lessons?
  - Is the bank's accounting policy conservative, with write-offs taken when recognized?
Managing Credit Risk

Communications

- Do loan officers at all levels perceive that senior management has a serious commitment to high credit standards?
- How is credit policy disseminated?
- How is the credit policy function perceived?
- Is the function understood?
- Does policy come through clearly at all levels?
- Is the bank’s credit apparatus viewed as integrated?
- Is a common language used for lending purposes?
- Has a credit deskbook been written, and is it used as a reference piece by loan officers?
- Does each loan officer understand what is expected of him or her, and is each officer aware of the impact of credit decisions on the rest of the bank?
- For credit extension, are the distinctions about who handles which tasks clearly perceived?
- Is a consistent lending style and approach developing?

Policy and Strategy

- What are the strategic options permitted by the environment? What are the bank’s competitive advantages? Is the bank properly structured? Have timetables been set for accomplishing objectives?
- Are markets properly identified and defined, and are approaches well planned and implemented?
- How widespread is target marketing?
- Are credit policy members included in the business planning process for each major lending area, and do they evaluate the appropriateness and risk of each market segment?
- Are institutional perspective and the integrity of the bank’s credit system the controlling factors, with the credit and needs of the marketplace balanced?
- Is there evidence that the loan officer’s or the supervisor’s won turf is of primary concern?
- Have policy guidelines and rules been set for each major lending area within the institutional framework?
- How are line officers generally motivated, judged, and rewarded for business booked?
- Does organizational ambiguity in the lending area exist?
- Is the credit policy function effective, and do loan officers consult credit with their homework well done?
- Is the institutional credit ethic well policed and defended?
- Is there lending consistency and adherence to uniform and sound practice?

Training

- Is there an institutional priority for credit training, and is it being sustained?
- Do credit training programs exist at the institutional and divisional levels, and how effective are they?
- What is the caliber of the training program’s staff? Effective training requires top talent. Is it provided?
- Have skill criteria been set for loan officers at the entry, intermediate, and senior levels, and has a skills inventory of the line been taken?
- Is there an age profile of loan officers?
- At entry level, does the institutional training program include accounting, corporate finance, economics, credit analysis, and lending approaches for all participants, regardless of the area of the bank to which the trainee is assigned?

Process

- Has a system been designed to review process deviations when they occur?
- Has the credit process for each major lending activity been described in a flow chart, and is adherence audited regularly?
- Is there appropriate and adequate credit talent opposite various market segments? Are staffing competence and loan officer performance monitored regularly at all levels?
- Is seasoned and mature credit talent deployed optimally?
- Do credit rules and policies match organizational configurations?
- How much does expediency enter into the assignment of loan officers?
- Is there excessive turnover?
- Are those who supervise loan officers involved in the credit process and strictly accountable for enforcing high credit standards and disciplines? Do they take the long, institutional view as opposed to short-run temptations? Do they over-delegate in credit matters?
- Have minimum standards been set for credit proposals?
- Do line officers “think credit”?
- Is there loan officer accountability?
Building Strong Management and Responding to Change

- Are credits followed carefully?
- Is there 100 percent early recognition of problems by line officers?
- Is loan officer performance evaluated at least annually?
- Is the work-out function staffed with broad-gauged and well-experienced people?

Audit

- What does audit include? Is conformance to credit policy, strategy, and business plans tracked regularly?
- How often are the practices, procedures, housekeeping, and overall portfolios of lending units evaluated?
- How well does each unit identify its market, negotiate its credits, document and disburse them, and manage its portfolio, including problems?
- What about training?
- Is turnover excessive?
- Are those involved in auditing the credit process experienced people who themselves have held responsible line positions?

Notes

1. One of the most promising techniques is group lending and credit cooperatives. Research indicates that group lending schemes have been successful with homogeneous groups that are jointly liable for defaults. The practice of denying credit to all group members in case of default is the most effective and least expensive way to enforce joint liability. Another way to encourage members to repay is to require mandatory deposits that are reimbursed only when all borrowers repay their loans. Difficulties with these types of lending arrangements appear to reflect implementation problems rather than problems with the techniques themselves (Huppi and Feder 1990: also see von Pischke 1991).

2. In some countries, particularly in transitional socialist economies, the new issues are the most fundamental ones: the concept of risk and the potential for losses on loans, the role of the lender in the bank-borrower relationship, concentrations of credit, and the effect of economic policy changes on borrowers' earnings.

3. For those interested in the concept of credit culture, see also “The Collapse of Citibank’s Credit Culture,” Institutional Investor, December 1991. As the title suggests, the article traces the factors that led to asset quality deterioration in one of the most well managed institutions in the world. According to the article, pressure to show profits led to a tendency to overlook well-documented credit standards during the 1980s.

4. The analysis described here presumes reliable financial disclosure and experienced management, conditions not currently prevalent in many developing markets. Nonetheless, these countries are improving financial disclosure by establishing accounting standards, strengthening the accounting profession, and developing the securities markets. Banks can both support and benefit from the process by imposing financial disclosure requirements on their borrowers, a strategy initiated in certain South Asian countries.

5. Various indicators provide a framework for a borrower assessment. The most traditional are the three C’s of credit: character, capital, and capacity; the three have subsequently been expanded to the five C’s with the addition of collateral and cash flow. Another set of indicators, broader and more meaningful, is referred to as the “five pillars of credit quality”: industry environment, competitive position, financial condition, management quality, and collateral quality. These are handy guides, but not a substitute for analysis.

6. In developing markets, the value of loan documentation is often undermined because contracts cannot be enforced. An adequate and functioning legal framework is essential to support credit risk management. Legal reform is fundamental to financial-sector reform.

7. In China, it is not uncommon for a bank to station a loan officer permanently on the client’s premises to monitor operations and inventory turnover.

8. Credit ratings are based on an in-depth analysis of the credit risk as described earlier in the section, “repayment source analysis.” In some developing markets, banks have devised mechanistic credit-rating systems based on financial indicators. A mechanistic approach is highly risky, especially in volatile markets or in markets where financial disclosure is unreliable. Credit-scoring techniques such as those used for consumer credit have narrow applicability and fit within a statistical approach to managing retail loan portfolios. They are not appropriate for corporate credit.


10. Various approaches have been adopted for the large-scale cleanup of bad loan portfolios. Sheng (1990a) compares approaches in nine countries. (See also Polizotto 1990.)

11. Special risk-management procedures are required for new venture financing. They include capital requirements and readily obtainable and marketable collateral. New venture financing, however, has rarely been carried out successfully by commercial banks. See Sagari and Guidotti (1991).

12. Overdraft facilities present a severe problem. Though they obviate the cumbersome procedures of
Managing Credit Risk

fixed maturity borrowings for short-term credit, they are subject to abuse, particularly in developing countries, which often lack the information and control systems to monitor them effectively. Excessive capitalization of past-due interest and failure to identify nonperforming accounts are endemic to overdraft facilities in developing countries.

13. By definition, loans to related firms are not bad loans. Frequently, however, loans to related firms are not made objectively according to banks' normal risk-acceptance criteria. For that reason, and because a high percentage of bank failures have been caused by connected lending, bank regulators generally restrict and monitor loans to related firms. A ratio of 10 percent of bank capital in loans to related firms is considered prudent.

14. Compensatory balances have also been used to increase loan yields in markets with interest-rate ceilings, a phenomenon that occurred in Japan and many other countries.

15. The information requests embedded in these questionnaires exceed information readily available in many banks in developing markets. Such information is essential for prudent credit management. The lists may thus provide useful guidance for developing management information systems for credit risk management.
4. Financial Management

Peter Falletti

The environment, services, and operations of banking are changing rapidly. In numerous countries, the era of economic regulation is giving way to technological advances, the privatization of industry, financial innovations, the internationalization of trade and finance, and demographic shifts that are changing the services demanded by consumers. These forces, together with the economic deregulation of banking systems, are challenging traditional approaches to bank management. A recent survey of bank restructurings in ten countries found that financial liberalization was an important precursor in each case (Sheng 1990a). This finding does not refute the numerous benefits of financial liberalization but rather highlights the importance of the policy reforms and institutional change that must accompany it. One of the most critical policy reforms for banking in a liberalized environment is strengthening prudential regulation as economic regulation declines. Institutionally, many of the critical internal reforms necessary to enable banks to cope with the new environment center on financial management.

Structural Change in the Banking Environment

Banks in many countries have historically operated under the protective umbrella of economic regulation, which encourages growth, discourages competition, and supports the profitability of certain financial institutions. Although regulation can protect the viability of banking systems, it can also inhibit downward pressure on the costs of financial services and innovation. For example, chartering and capital requirements control access to the industry by erecting entry barriers for new competitors; restrictions on branching and diversification inhibit competition; product monopolies confer competitive advantages on some institutions; and pricing differentials established through the regulation of interest rates confer competitive advantages on others.

While benefits may accrue to certain existing institutions, regulatory protection distorts resource allocation within the economy. Where assets and liabilities of protected institutions are determined by a high level of economic regulation, the savings flows and investment decisions of the economy are affected significantly by the regulatory process rather than by market mechanisms.

Furthermore, in mature markets, regulation limits the growth opportunities of banks through diversification and inhibits the ability of managers of financial institutions to develop risk-management skills. These deficiencies have become apparent as the protection of the financial services industry dissolves under the pressures of various forces—advancing technology, demographic shifts, privatization, the internationalization of trade and finance, securitization, and volatility in rates of interest and foreign exchange:

- **Advancing technology**—Technology changes the method of delivering financial services and multiplies the points at which financial transactions can occur. Technology can also reduce the cost of and hasten entry into the financial services industry.
- **Demography**—In industrial countries, the age composition of the population is changing the focus of financial services demanded by retail customers, from loans to savings and investment products. Convenience has become more important as people become more mobile, travel greater distances to work, and have less time to tend to financial matters. Greater financial sophistication among the public has created demands for eliminating regulations that seem to favor the institution over the consumer. In many developing countries demographic trends create a demand for youth-oriented products, such as student loans and loans for young entrepreneurs.
• **Privatization**—Many governments are denationalizing sectors of the economy. Privatization reduces the burden of the public sector on the economy, creates new financial opportunities for financial institutions, and alters the perceived credit risks of newly privatized entities.

• **Internationalization of trade and finance**—The integration of the world economy continues to accelerate as both manufacturing and service firms seek to gain competitive advantage by locating their operations strategically in both industrial and developing countries. The growth in multinational activity by industrial, agricultural, and commercial firms is being paralleled by the activities of financial institutions as they seek to provide financial services to their home country clients wherever they conduct their business. Such activity exerts pressure on all countries to reduce strict entry barriers and to create compatible regulations.

• **Securitization**—Investment and merchant bankers continue to use innovative financing techniques to meet the credit and liquidity needs not only of large, highly rated borrowers, but also of entire sectors of the economy. In the United States, commercial paper, mortgage-backed securities, and high-yield junk bonds are all examples of the securitization process.

• **Volatile interest rates and foreign exchange**—As the internationalization of trade and finance and instantaneous telecommunications reduce the ability of individual governments to control interest and foreign-exchange rates independently, these rates will remain subject to sudden and, in some cases, severe daily fluctuations. The ability of financial institutions to respond to such changes is affected by regulatory constraints on product pricing, their balance-sheet composition, and their ability to use financial hedging techniques, in addition to their financial management skills.

These forces undermine regulatory structures in various ways. They blur traditional boundaries for both products (negotiable order of withdrawal, or NOW, accounts compared with demand-deposit accounts or money market mutual funds) and institutions (commercial compared with investment banking). They encourage new and innovative organizations to enter the financial services industry. Profit margins are lowered on regulated activities as loan yields decline because of increased competition, and funding costs increase with the introduction of new instruments. In addition, new sources of profitability are created outside the scope of existing regulations.

Accelerating deregulation creates new profit opportunities but also involves substantially more risk for financial institutions. A financial institution faces greater risk of failure in this type of operating environment unless it develops the necessary risk-management expertise.

### Financial Management in Developing Financial Markets

Until recently, financial management had little relevance in the financial markets of developing countries. Interest rates were fixed by the monetary authorities, the structure of financial instruments was often pre-established, and financial markets had little depth or activity. Banks were not permitted to operate in foreign currencies, their limited autonomy made independent planning objectives largely immaterial, and national accounting standards did not require the level of disclosure that would permit an accurate evaluation of profitability or capital adequacy.

Conditions are changing in many markets, in some cases abruptly, making it urgent that banks operating in these markets strengthen their financial management. Several areas must be strengthened: financial information must be made more accessible; financial policies must be developed; financial skills must be improved, particularly in asset and liability portfolio management; an asset and liability management process must be created; organizational structure must be improved; responsibility for financial management must be defined clearly; and controls must be made more efficient.

### The Objectives and Scope of Financial Management

The goal of financial management is to maximize the value of the banking institution, which is determined by its profitability and risk level. Theoretically, this goal implies that the sustainable future earnings of a company be capitalized by investors using a discount factor that reflects the variability of those earnings. Net income generated through speculative activities is worth less to an investor than core earnings—those generated by the sound management of the organization—because, due to the inherent nature of speculation, the continued flow of net income based on speculation is always in doubt.

Thus, the operating focus of financial manage-
Building Strong Management and Responding to Change

ment is essentially risk management. Although the financial management function is not solely responsible for managing all banking risks, it plays a central role in identifying, quantifying, monitoring, and planning for effective risk management. The most significant types of business risk for a banking institution, apart from credit risk and fraud, are product, market, and customer risks, technological risks, and financial risks.

Product, market, and customer risks arise from the actions of competitors and regulators, as well as from changes in demographic composition and the size of the overall market. These factors can significantly change the acceptance and profitability of an institution's products. For example, the introduction of NOW accounts by thrift institutions in the United States forced commercial banks to create a similar product or face a dramatic loss in market share.

An organization is exposed to technological risks created by continued advances in technology, which can make the organization's current processing and production techniques obsolete or too expensive to be competitive. In addition, technology can be applied to the product and information processing systems that banking institutions use to create competitive advantages. For example, automated teller machines enhance customer convenience, and customer information files improve the ability of a bank to market its products to its customer base.

Product/market/customer risks and technological risks should be managed through the bank's strategic planning and annual budgeting processes. Effective control of these risks necessitates developing a vision of the type of organization to which a bank will aspire and the specific business activities that it will pursue. Data on social, economic, political, and technological trends must be collected and analyzed. The activities of competitors must be monitored, and a strategic plan must be created, updated annually, and implemented through annual operating budgets and action plans (see chapter 2, "Planning").

Decisions made throughout the planning process substantially affect financial risk, which consists of eight separate elements:

- **Capital adequacy**—Maintaining sufficient capital to meet both strategic needs (such as anticipated future mergers or entry into a new, riskier line of business) and regulatory guidelines.
- **Asset quality (credit risk)**—Minimizing losses incurred through investment and lending activities.
- **Liquidity**—Ensuring the availability of reasonably priced funds to meet ongoing business needs.
- **Interest-rate and foreign-exchange sensitivity**—Managing both balance-sheet and off-balance-sheet positions to meet asset-liability management goals and contain risk within overall policy guidelines.
- **Off-balance-sheet positions**—Ensuring that only authorized transactions (swaps, forward contracts, and letters of credit) are performed, and that the asset quality, liquidity, interest-rate, and foreign-exchange risks created by these positions are monitored.
- **Operating exposures**—Controlling settlement risks from the increased use of automated, interfaced application and transaction systems.
- **Internal control**—Minimizing losses incurred through unauthorized transactions, defalcations, and the absence of policy enforcement.
- **Litigation**—Monitoring the status of pending and current litigation to reduce the overall cost of litigation and ensure the timely settlement of all actions.

Each element of financial risk requires specific policies and risk parameters set jointly by the bank's directors and management. A key objective of financial policies is to balance, but not necessarily to equalize, these interdependent risk elements. Equalization is not possible, because actions taken to reduce one risk element may increase another. For example, increasing the interest-rate sensitivity of the liability portfolio to reduce an asset and liability management imbalance has the offsetting effect of increasing liquidity risk, because the average maturity of the liability portfolio will decrease.

By their very nature, these elements of financial risk require ongoing management attention, which in turn implies developing an explicit process. How formalized should this process be? In smaller institutions that operate in a regulated environment, an informal process of financial management may provide sufficient control over these risks. In larger institutions, however, particularly those operating in a deregulated market, effective risk management requires a formal process that clearly establishes the financial management function as its central focus.

The scope of the financial management function includes strategic planning, capital planning and related finances, asset and liability management, treasury operations, accounting and information systems, financial planning and budgeting, tax planning and compliance, and internal control. The following sections discuss the role and focus of financial management in each of these areas.
Strategic Planning

Financial management plays several key roles in the strategic planning process. It provides essential planning data, such as current position and historical trends for the eight components of financial risks; it supports analysis of the earning dynamics of the institution, and generates information on the profitability of functional units, products, and businesses; and it provides the economic forecast on which the strategic plan is based. Financial management may define the structure and mechanics of the strategic planning process and ensure that planning participants from all operating units are trained. In its functional tasks, financial management must design a process for analyzing proposed capital expenditures or new marketing and product programs. It must also provide both the format of and the related definitions for financial projections, and it must develop the financial model; at the same time, it must set the overall risk parameters for the eight elements of financial risk. These tasks are described in the following subsections.

Designing a Process for Analyzing Proposed Capital Expenditures

A key element in an analysis of proposed capital expenditures is defining the minimum acceptable internal rate of return for a proposal. A consistent format is necessary to ensure that management is able to rank the various proposals equitably. These procedures are necessary because an institution has limited capacity to finance new capital expenditures. Consequently, proposed projects should be ranked to ensure that capital is invested in those projects that offer the greatest potential economic benefit to the bank. The three most commonly used methods for ranking capital investment proposals are payback, net present value, and internal rate of return.

The payback method entails setting a payback period equal to the number of years required to recover the bank’s initial capital investment. This method for ranking project proposals is simplistic, because it ignores both the cash flows subsequent to the payback period and the time value of money. It is, however, an effective method for ranking routine or recurring projects, such as building renovations or equipment upgrades.

The net present value method entails computing the present value of future cash flows from the project by discounting the cash flows at the bank’s cost of capital. The initial investment subtracted from this present value equals the net present value of the project. If the net present value is positive, the project should be included on the list of acceptable projects; if it is negative, it should be excluded. This method overcomes the conceptual flaws of the payback method, but the validity of the analysis depends on reliable estimates of future cash flows, as does the validity of the internal rate of return method described in the next paragraph.

The internal rate of return method is a variation of the net present value method. It entails computing the interest rate that equates the present value of the expected future cash flows of the project to the initial cost of the project. With the net present value method, the discount rate or interest rate equals the bank’s cost of capital; the interest rate is determined mathematically. This calculated interest rate may be above or below the bank’s cost of capital. The method thus involves a target, or hurdle, rate (determined by financial management) that equals the minimum acceptable rate of return from a project. Frequently, this hurdle rate equals either the actual or desired return on equity capital for the bank.

Each method is a valid ranking technique. The primary purpose of choosing a methodology for the strategic plan is to quantify managers’ expectations about the benefits and costs of proposed projects, ensure a consistent analysis of all projects, and rank the projects so that sound decisions can be made when specific projects are to be selected for inclusion in the strategic plan.

Providing the Format and Related Definitions for Financial Projections

In specifying the formats for financial projections, financial management should minimize the level of detail by emphasizing data that can be used to track performance. Formats should be consistent with the major line items used in monthly management reports. The overall objective should be to ensure that financial management can measure actual results against planned performance. This ability is critical to supporting the implementation of the strategic plan.

Developing a Financial Model

A financial model is initially used to project financial performance according to a baseline scenario. The baseline projection, which serves as a benchmark for comparing the simulations of various
operating strategies developed under the plan, should cover a period of three to five years. For example, if the baseline projection indicated that net income would increase by 6 percent per year over the next five years, then only strategies that would generate more than 6 percent growth per year should be considered for implementation.

Computer-based financial models range from simple personal-computer spreadsheet programs to highly sophisticated mainframe computer systems. Such models can be purchased from software vendors, specialized consulting firms, or large financial institutions, or they can be developed with in-house resources. Several features are key to a successful financial model. The model should be easy to install and maintain, and provide flexibility for designing reports. It must be amenable to changing assumptions, and to the downloading or transfer of data from mainframe systems. It must have the capacity to generate a complete set of statements: balance sheet, income statement, and asset and liability management reports, and consolidated financial statements. Finally, it should enable data to be entered into a database that will facilitate reporting from multiple organizational perspectives—for example, total bank, products, and business segments. An example of a forecasting model appears as annex 2, chapter 2, "Planning."

Setting the Overall Risk Parameters

When the risk parameters for the eight elements of financial risk are set according to the current financial management policies of the organization, operating units will be able to recognize when they go beyond the desired risk profile of the bank. These guidelines are usually expressed as ratios or absolute monetary limits. For example, the lending function may be subject to a maximum ratio of net-loan chargeoffs to total average loans, or 0.5 percent (an asset quality constraint), or to a total loan limit of eight times total equity (a capital adequacy constraint).

Financial management should participate with each operating unit in analyzing and reviewing the strategic plans. Its responsibilities include:

- Performing preliminary analyses of the plans, noting strengths, weaknesses, risk-parameters compliance, and overall achievability.
- Serving as counterpart to executive management in these review sessions.
- Processing recommendations from the review sessions through the planning model to determine the final financial forecast from the strategic planning process.

Capital Planning

The strategic plan determines the businesses in which a bank will participate. In turn, the types of businesses determine the overall level of risk, which affects the organization's need for capital. Ideally, the capital plan of a bank should be derived from its strategic plan, not vice versa. As noted earlier, however, capital adequacy constraints and access to capital may limit or influence the shape of the final strategic plan.

Capital levels for banking institutions are derived from the interaction of two competing forces. One consists of the regulatory authorities, which try to establish high capital standards. Capital serves as a cushion for possible losses, reducing the potential need for regulatory assistance. Higher capital levels increase the confidence of depositors, which reduces liquidity risk and exerts financial discipline on bank managers. The other force consists of the shareholders, who want to maintain the lowest level of capital necessary to ensure an adequate return on their investment without incurring undue risk.

Capital standards for banking institutions have historically been set by regulatory authorities in each country, with little coordination or equalization among countries. Under the pressure of growing volumes of cross-border trading and financing activities, this insular approach has given way to a more international regulatory process. The clearest signal that this change had begun in earnest came in 1988, with the signing of the framework for international bank capital standards created by the Basle Committee on Banking Regulations and Supervisory Practices (the Basle Agreement). The agreement designated minimum capital levels and adjusted for credit risk for commercial banks in twelve industrial countries, but many others are also implementing the standards. The banking regulatory authorities in each country are to implement this agreement by the end of 1992.

Calculating Risk-adjusted Capital Ratios

The Basle Agreement stipulates that all banks maintain a minimum ratio of core capital to risk-weighted assets of 4 percent by the end of 1992. As a component of this ratio, the minimum ratio of common equity to risk-weighted assets should also be 4 percent, and the minimum ratio of total capital...
Capital to risk-weighted assets should be 8 percent.

Core, or "tier 1," capital equals common stockholders' equity plus minority interests in the common equity accounts of consolidated subsidiaries, less goodwill and other disallowed intangibles. Goodwill need not be deducted from common equity until 1992. Total capital equals core capital plus supplementary capital.

Supplementary, or "tier 2," capital equals the sum of (a) the allowance for loan and lease losses (limited to 1.25 percent of risk-weighted assets in 1992), (b) perpetual and long-term preferred stock, (c) hybrid capital instruments, perpetual debt, and mandatory convertible securities, (d) subordinated debt, and (e) intermediate-term preferred stock. In calculating risk-adjusted capital, one must multiply the assets by the percentage weight. The risk-weighted assets are the denominators in both the core capital and total capital ratios. Table 4.1 illustrates the use of risk weights.

The Basle Agreement is important to banks in developing countries, because their markets are undergoing a period of change that is bringing them into the global financial market. Thus they are likely to come under increasing pressure to conform to the emerging international capital standards. It is more likely that they will be required to exceed these standards, because the very nature of their business creates higher levels of financial risk, a reality recognized in the agreement itself.

The pressures imposed by a deregulated operating environment require that an institution do more than meet regulatory minimums for capital adequacy. Financial management must take an active role in encouraging that a capital cushion be accumulated in advance of deregulation. Experience in industrial countries has shown that only institutions with enough capital to afford the cost of restructuring their balance sheets survive the deregulation process. In the United States, for example, the savings and loan crisis was caused as much by the undercapitalization of the industry at the start of deregulation as it was by fraud, poor management, and inept regulation.

In 1978, when the financial services industry was first deregulated in the United States, the thrift industry's ratio of equity to assets was approximately 3 percent. This capital level was adequate in the regulated operating environment, because the majority of thrift assets were residential mortgage loans, mortgage-backed securities, or U.S. Treasury or agency securities. In turn, the high quality of these assets generated minimal levels of credit risk, while inflation in real estate values protected the quality of the industry's assets. These assets were funded by consumer deposits, whose rates were subject to limitations in the Federal Reserve System's Regulation Q. The profitability of the thrift industry was comparable to that of the commercial banking industry.

However, the thrift industry's balance sheet contained a high level of interest-rate risk: long-term, fixed-rate assets were funded by short-term, fixed-rate liabilities. The regulation of deposit interest rates protected the thrift industry from this risk. As long as the protection remained, the capital level of the industry was adequate, because the amount of credit risk was minimal.

When deregulation eliminated the protection of Regulation Q, the thrift industry suddenly faced an unprecedented level of interest-rate risk that was severely underestimated by the industry and its regulators. Deposit interest rates increased, while asset interest rates remained fixed. Asset values fell rapidly as interest rates rose to historic heights. The thrift industry's balance sheet could not be restructured securely without its selling off the old fixed-rate assets at a loss; such losses would reduce the capital base of the industry. The thrift industry did not anticipate the implied need for additional capital when deregulation began.

Had the thrift industry's capital base been sufficient to absorb the cost of restructuring without its falling to an inadequate level, there would have been no thrift industry crisis in the early 1980s, nor would there have been the subsequent debacle at the end of that decade. For example, if from 1978 to 1981 the thrift industry had raised its capital-asset ratio from 3 percent to 6 percent, and if the cost of restructuring the industry's balance sheet equaled 3 percent of assets (approximately the level of losses incurred by the industry during the 1981-

<table>
<thead>
<tr>
<th></th>
<th>Face value (dollars)</th>
<th>Risk weight (percent)</th>
<th>Risk-weighted value (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balances with domestic banks</td>
<td>50</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Long-term government securities</td>
<td>200</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Residential mortgage loans</td>
<td>300</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>Loans to private corporations</td>
<td>350</td>
<td>100</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>900</td>
<td>530</td>
<td></td>
</tr>
</tbody>
</table>

69
Building Strong Management and Responding to Change

83 period), then the industry could have sustained these losses without reducing its capital below pres- deregulation levels. Such an outcome would have left the thrift industry in a strong position to man- age its profitability successfully during the remain- der of the decade.*

The Role of Financial Management

As the example of the thrift industry illustrates, capital planning is critical to the success of banking institutions. Financial management is responsible for determining capital-level targets based on the strategic plan, monitoring regulatory capital requirements, comparing projected capital levels to both strategic and regulatory standards, developing plans for raising the necessary capital, and executing approved capital-financing plans.

During the capital planning process, financial management will project the future level of total assets, risk-weighted assets, capital, net income, and dividends. Typically, if an institution is growing at a slow to moderate rate, then internal sources of capital, such as retained operating earnings or the sale of assets at a profit, will generate a sufficient new amount of capital to maintain capital adequacy. If, however, an institution is projecting rapid growth or a sudden increase in regulatory capital requirements, then it will probably require external sources of capital, such as institutional investors, foreign banks, and individual investors, to meet its capital-level targets. As its dependence on external sources increases, an institution’s fi- nancial management function must develop an effec- tive investor-relations program, identifying key investors, monitoring share trading, providing fi- nancial information to shareholders, and explaining the results to security analysts. To have continued access to external capital, the institution must also maintain a sound financial structure, a high-quality loan portfolio, and a dependable earnings stream.

Asset and Liability Management

Asset and liability (A/L) management charts the course of the balance sheet over successive interest-rate cycles. Such management is necessary to produce stable net interest margins, optimize earnings, maintain adequate liquidity, and control the level of interest rate and maturity risk.

The essence of A/L management is the ability to manage the exposure of a bank’s earnings and equity to changes in a market’s interest rates. Interest-rate risk is a structural problem outside the control of any individual institution. It arises from a variety of factors, such as volatile market interest rates and the shape of market yield curves.

A/L management must also consider (a) loan and deposit pricing constraints, because the pricing actions of competitors in a deregulated operating environment can significantly alter interest-rate risk; (b) the timing of cash flows generated by assets and liabilities whose maturities or repricing cannot be exactly matched; and (c) the financial risks, contract terms, and customer behavior, which require strategic thinking and policy controls. Asset and liability structures can be altered by the decisions of customers to prepay loans, withdraw deposits early, or move their business to compet- ing institutions. In developing markets, term-trans- formation risk can be particularly severe because funding markets are shallow. Box 4.1 depicts the A/L management process.

Financial management plays a key role in en- suring that the institution has the ingredients neces- sary for an effective A/L management process. These ingredients include an asset and liability management committee (ALCO) and specific poli- cies for overall A/L management goals and risk parameters covering investments in securities, li- quidity, money market assets, funds acquisitions, hedging, and foreign-exchange trading. Box 4.2 provides a sample outline of key areas of bank policy for A/L management. The sample is not all-inclusive, but it is representative.

An effective A/L management process also in- cludes the following ingredients:

- Specification of the information required for ALCO decisions, including (a) volume data for each asset and liability portfolio, covering historical, current, and projected volumes, projected additions, projected maturities, and amounts repricing before maturity for both the current portfolio and projected additions; and (b) yields and rates for the current portfolio and the projected portfolio and the relationship of the portfolio yield and rate to market interest rates and to other asset and liability portfolios.

- A financial model that can simulate the ef- fect of proposed strategies on earnings and equity under various interest-rate scenarios.

- A common conceptual framework for ana- lyzing ALCO data and for making ALCO deci- sions.

- Coordination of the execution of ALCO de- cisions and strategies.
### Box 4.1 The Asset and Liability Management Process

#### Asset and Liability Management Model

<table>
<thead>
<tr>
<th>Policy setting</th>
<th>Target Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>External data gathering</td>
<td>- Protect the shareholders and depositors</td>
</tr>
<tr>
<td>Analyses</td>
<td>- Maintain sufficient liquidity to cover cash flow requirements, invest idle liquidity profitably</td>
</tr>
<tr>
<td>Internal data gathering</td>
<td>- Manage the interest rate gap to maximize earnings within risk limits</td>
</tr>
<tr>
<td>Pricing management</td>
<td>- Generate attractive foreign exchange earnings within risk limits</td>
</tr>
<tr>
<td>Liquidity management</td>
<td>- Maintain sufficient capital to cushion against business risks</td>
</tr>
<tr>
<td>Gap management</td>
<td>- Price products to support asset and liability management and maximize the bank's earnings</td>
</tr>
<tr>
<td>Foreign exchange management</td>
<td></td>
</tr>
<tr>
<td>Pricing management</td>
<td></td>
</tr>
<tr>
<td>Execution</td>
<td></td>
</tr>
</tbody>
</table>

Source: Booz-Allen & Hamilton.

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### Gap Management and Duration Analyses

By using gap management and/or duration analyses, financial management can analyze exposure to the dynamics of market interest rates. Information derived from either technique should be combined with current data from the balance sheet and the income statement to support simulating the impact of changing rates in the financial model.

Gap management measures the difference between the volume of assets and the volume of liabilities that will be repriced during a week, month, quarter, or year. Assets and liabilities are assigned to the appropriate time period as fixed-rate instruments that are entered in the period specified by contractual terms and/or the maturity date, and as variable-rate instruments that are entered during the repricing period.

The gap management theory assumes that declining interest rates will be beneficial to a liability-sensitive institution (that is, in which repricing liabilities exceed repricing assets in the time period), and that rising interest rates will benefit an asset-sensitive institution.

Gap management should be used with caution, because it is based on four erroneous assumptions. First, it assumes that the timing of repricing is the primary factor that affects interest-rate risk. In fact, the timing of repricing merely creates opportunities for changes in net interest income. Second, it assumes that all assets and liabilities in a given period will reprice in the direction of the movement of market interest rates. Experience has shown that this pattern is rare, because all of the assets or liabilities repriced in a given maturity period will not have been initially recorded in the same period. For example, the class of liabilities that mature in 30 days may contain liabilities whose original maturities were 30 days, 1 year, 4 years, and so on. Gap management supposes that all these liabilities will react equally to changes in the market interest rate. If the longer-term liabilities were issued in a period of high interest rates, their interest rate would probably decline even if the market interest rates increased. This scenario is known as “basis risk,” meaning that all pricing indexes used for pricing assets and liabilities do not adjust equally to changing interest rates.

Third, gap management assumes that a neutral position—that is, equal assets and liabilities—will produce stable earnings. Results in the United States have shown that a neutral gap position is likely to produce unstable levels of net interest income because of the first two erroneous assump-
tions. Fourth, gap management acts as if reinvestment risk can be ignored. Reinvestment risk may not affect a bank's gap position, but it has a significant effect on changes in net interest income created by changes in the market interest rates. Despite these drawbacks, the preparation and review of gap-management data provide useful insights into the factors that create interest-rate risk for an institution.

In recent years, more sophisticated institutions have increasingly begun to use duration analysis rather than gap analysis to assess their current and projected A/L position. Duration analysis is determined according to the basic equation that the market value of assets must equal the market value of liabilities plus the market value of equity. Computing duration is a complex process and typically involves scheduling the periodic cash flow (both principal and interest) of asset and liability portfolios. The current value of each cash flow must be calculated and multiplied by the number that represents its time-line compounding period. The sum of the results must then be divided by the market value of the portfolio. The value of duration analysis is directly related to underlying assumptions about cash flow and related discount rates.

Duration analysis can be used to compute the effect of changing rates on the market value of equity. Such information can be useful, but in many cases the cost and effort may not be worth the benefits. However, as data become more readily available in future modifications to operating systems, the computation will become more cost-effective.

Financial management should take the lead in defining the parameters of interest-rate risk and related policies, choosing appropriate techniques for analyzing interest-rate risk, developing and evaluating strategies for controlling interest-rate risk, and educating nonfinancial managers in A/L

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**Box 4.2 Key Areas of Bank Policy for Asset and Liability Management**

*Asset and liability management policy*
- Authority for ALCO.
- The purpose, function, membership, and duties of ALCO.
- A/L management targets for net interest-rate margin, return on assets, and return on equity.
- Interest-rate risk parameters: gap policy limits, duration policy limits, and variance limits for net interest income when market interest rates increase or decrease by specified amounts.
- Liquidity ratios: overview, with more detailed requirements contained in the liquidity policy.
- Funding policy.
- Exception procedures.

*Investment securities policy*
- The objectives of investment securities management: yield liquidity, the portfolio's percentage of total assets, and credit risk.
- Policy administration.
- Government securities portfolio.
- Mortgage-backed securities portfolio.
- Tax-exempt securities portfolio.
- Periodic review of objectives and portfolio performance.
- Exception procedures.

*Liquidity policy*
- Objectives of liquidity management: definition of liquidity and of minimum and maximum liquidity positions.
- Policy administration.
- Measures of liquidity (based on definition): ratios, borrowing capacity, asset maturities, and cash flows.
- Contingency sources of funds.
- Projections of balance sheet and liquidity needs.
- Relationship of liquidity to leverage, interest-rate sensitivity, and bank net income.
- Periodic review of objectives and performance.

*Treasury trading policy*
- Objectives of treasury trading management: return on assets, incremental earnings, liquidity, and interest-rate sensitivity.
- Trading parameters for investments in federal funds (overnight and term), foreign exchange (spot and forward), Eurodeposits and Eurocertificates of deposit, repurchase agreements, dollar rolls, resales, bankers acceptances, and trading account investment securities.
- Reporting transactions and positions.
- Periodic review of objectives and performance.

*Hedging activities policy*
- Objectives of hedging activities: controlling interest-rate sensitivity, net interest income, liquidity, and incremental earnings.
- Allowable hedging instruments.
- Allowable hedging strategies.
- Parameters for positions in interest-rate futures, options, and swaps, in commitments to buy-and-sell securities or loans, and in foreign exchange.
theory and techniques. (Appendix 2 expands upon this discussion of A/L management and appendix 3 covers foreign-exchange risk management.)

Forecasting Interest Rates

An institution must begin repositioning its balance sheet for the next phase of the interest rate cycle before the current phase ends, because transactions take time to plan and execute. Thus, a bank that positions its balance sheet to maximize earnings at either the top or the bottom of the rate cycle will necessarily fail to maximize earnings over the entire cycle.

Consequently, effective A/L management must be based on an explicit forecast of interest rates. Interest-rate forecasts can be derived from market yield curves, published economic forecasts, and internal forecasting techniques. No matter which method is used, financial management is responsible for facilitating the development of an explicit interest-rate forecast and ensuring that decisions made by ALCO are consistent with that forecast.

Treasury Operations

As the financial management function in a financial institution becomes more sophisticated, a clearly identifiable treasury function emerges and becomes a critical tool for controlling liquidity, interest-rate and off-balance-sheet risks, loans, deposits, borrowed-funds pricing, and the execution of A/L management policies.

Treasury operations encompass funds acquisition, investment in marketable securities, hedging, and the management of the institution's reserve account at the central bank.

Funds acquisition involves the sale of various money market instruments (liabilities) in the wholesale or institutional marketplace, including, but not limited to, certificates of deposits, Eurodollar deposits, bankers acceptances, and repurchase agreements. It also involves interbank and central bank borrowings. Funds acquisition focuses primarily on managing liquidity risk but is also applied to strategies for managing interest-rate risk.

Investment covers the purchase and sale of short-term money market assets, taxable and tax-exempt securities, interbank placements, and trading account securities. The objective of this function is to provide asset liquidity, maximize total return from nonlending earning assets, and support implementing ALCO strategies.

Hedging entails managing interest-rate and off-balance-sheet risk and may include transactions involving interest-rate futures, options, and swaps; commitments to buy and sell loans and securities; and foreign-exchange trading.

Central bank reserve account activities entail managing the balances in required reserve accounts to ensure that the bank meets regulatory requirements while minimizing excess nonearning balances.

Treasury operations can also provide data for making internal funds-transfer computations in the bank's management accounting systems (see the subsection, "Management Accounting and Information Reporting").

These various activities may be scattered throughout the operating units of smaller financial institutions, but such decentralization can work only if the flow of necessary information from one unit to another is unimpeded, an unrealistic expectation in larger organizations. Therefore, large institutions usually implement a centralized treasury operation to ensure effective risk management.

Accounting and Information Systems

In any organization, the accounting process captures the information necessary for managing risks and reporting performance and financial condition. The accounting process in financial institutions is unique, because it is not limited to the financial management function but permeates the entire organization. All operating units of a financial institution create accounting data as they record transactions through manual subledgers or computer systems. Consequently, financial management's responsibility for the accounting process extends well beyond the general ledger maintained in the accounting department or controller's office.

In small banking institutions in the United States (those whose total assets equal less than $50 million) and frequently in the banking institutions of developing countries, the link between the accounting and operations processes is reflected in the table of organization. In these banks, the accounting function is typically a component of the operational units. This organizational placement enhances the coordination of the accounting and operational functions, but it limits the accounting function's scope to the operational level of the bank, its focus to technical issues, and its goal to meeting essential accounting requirements rather than to providing critical information for managing the bank.
As the size and sophistication of a bank grow, the accounting function is typically separated from banking operations in light of the increased demand for management-oriented accounting information and the necessity of meeting more complex regulatory and financial accounting requirements.

Financial management plays several key roles in the accounting process of a bank. It must establish and maintain a chart of accounts for processing accounting data in the general ledger. This chart of accounts represents the lowest level of detail available for reporting from the general ledger. The chart of accounts should be designed to accommodate multiple reporting perspectives (for example, branch, product, and customer profitability) and constituencies (regulatory, shareholder, and internal).

Financial management must also define the specifications for the automatic data interface between the computer subsystems and the general ledger. For example, a commercial loan application system contains multiple types of loans that are specified by the lending division to meet its management needs. If the data required to make accounting entries for commercial loan activity are to be interfaced with the general ledger system, these types of loans must be matched with the appropriate general ledger account. The accounting department should provide these specifications to the data processing department for use in the interface program. Financial management must also develop accounting policies and procedures, communicate these requirements throughout the institution, and reconcile the various subledgers (both positive and negative) from peer-group norms to the general ledger.

The continuing internationalization of trade and finance exerts relentless pressure on banks to adopt international accounting standards. These standards will be necessary to support regulatory policymaking, cross-border investment and acquisition decisions, and performance evaluation of international banks. The financial managers of all banks should be aware of this trend, because the adoption of such standards will affect their own accounting requirements. International Accounting Standard 30 covers international accounting standards for banking institutions with emphasis on disclosure.

**Financial Reporting**

Not only bank managers, but also regulators, directors, shareholders, creditors, and suppliers, use a bank's financial statements. Shareholders, creditors, and suppliers depend primarily on financial information published in the bank's annual and quarterly reports according to generally accepted accounting principles. Regulators use both the published information and reports prepared according to instructions and guidelines contained in banking regulations.

Managers and directors receive these public and regulatory reports, but their information needs extend beyond the required formats of those reports. Internal financial reports for use by management and directors should be designed around the eight elements of financial risk: capital adequacy, asset quality, liquidity, interest-rate and foreign-exchange sensitivity, off-balance-sheet positions, operating exposures, internal control, and litigation.

In addition, the reports should focus on the quality or sustainability of the bank's earnings, based on an analysis of the key components of net income: net interest income, provision for loan losses, noninterest income, noninterest expense, extraordinary items, and income taxes. Effective reporting highlights the need for decisionmaking in some cases, the manner of presentation may actually force action to be taken.

Fundamental to producing relevant, useful reports are comparisons of current results with budgets, strategic plans, previous results, and peer-group data to add perspective and relevance. Peer-group comparisons should be made at least annually, but preferably quarterly, because they provide an objective benchmark for measuring the institution's performance. Persistent deviations (both positive and negative) from peer-group norms should be analyzed, reported to the board of directors, and incorporated into the planning database for updating the bank's strategic plan.

The validity of these comparisons depends on the proper peer group. The size and location of the bank should not be the key determinants of peer-group members; rather, the key determinants should be the similarity of business mix and the overall emphasis of the peer banks. The members must also use common accounting principles in reporting financial condition and performance. For this reason, regulatory reports are preferable to annual reports as a source of financial data, because institutions are required to follow the same accounting definitions when reporting to a common regulator.

Another guideline for preparing reports for banking directors and managers is to avoid excessive detail. These officers do not need the same
level of detail and analysis that is required by the financial management staff. The reporting process must synthesize the key elements of information that others need for a comprehensive understanding of the financial condition and performance of the bank. Graphics significantly enhance the understanding of users outside the financial management function.

Financial management should produce a glossary of the terms, ratios, and key computations that are used to prepare the financial reports. This glossary will help nonfinancial managers analyze the reports and allow discussion to focus on financial results, rather than become bogged down with the explanation of basic terms. Because the format and definitions used in the financial reports will change from time to time, reports that present information for more than one time period must be based on consistent reporting guidelines. Internal financial reports should be distributed at least one day before review meetings to allow time for each participant to analyze the results and prepare appropriate questions for the group discussion.

Financial management is also responsible for preparing external financial reports for regulators, shareholders, and debtholders. Because each of these reports may require unique formats and definitions, financial management must establish a mechanism for keeping abreast of the current requirements of each of these external entities.

Management Accounting and Information Reporting

Management accounting differs from financial accounting and regulatory accounting in two significant ways. First, financial and regulatory accounting focus on the institution as a whole; whereas management accounting focuses on key components of the institution, such as products, branches, or business units devoted to specific economic sectors or markets. Second, in industrial countries, but increasingly in developing countries, financial and regulatory accounting is based on a set of accepted principles that determine how transactions and financial conditions will be recorded. Management accounting reports are not subject to this set of principles and can be designed to meet the philosophy, objectives, and needs of the management team.

The management accounting process focuses on the earning dynamics of the institution—that is, the contribution of customers, products, and branches to net operating income. Hence, management accounting is essential for generating the information necessary for strategic planning, budgeting, resource allocation, marketing, and product pricing.

Cost Accounting

The need for management accounting information acts as a catalyst for developing cost accounting within the financial management function. Cost accounting remains a relatively new discipline for financial institutions. For example, before 1978 (the beginning of deregulation), cost accounting departments in the United States existed only in the top fifty commercial banks, and the National Association of Bank Cost Accountants was not formed until 1980. The profitability afforded by regulation prompted bank managers to believe mistakenly that cost accounting information was not necessary to ensure long-term profitability. The competitive environment spawned by deregulation has exposed this mistaken assumption.

Cost accounting calculates the variable and fixed costs of banking transactions, services, products, or functions. A bank can use cost accounting to allocate the operating expenses of various organizational units, products, or services based on either actual-cost or standard-cost methodologies. The actual-cost method allocates the total actual operating expenses of a unit. The standard-cost method allocates only those expenses that should have been incurred given planned or reasonably anticipated levels of operating volume.

Banks need cost accounting data to calculate unit costs for pricing decisions and for allocating operating expenses to units, products, or customers in profitability measurement systems. The major obstacles to cost accounting in a bank are the lack of technical cost accounting expertise, organizational resistance to the cost accounting process, the lack of commitment by senior management to a comprehensive cost accounting philosophy, and operating systems that do not provide the necessary data for computing or allocating the cost of functional activities, such as operations and human resource management.

Financial management should work with the entire management team to overcome these obstacles and clearly define the degree of cost accounting accuracy needed for profitability analysis. Most banks can maintain reasonable accuracy (80 percent to 90 percent) without excessive costs. The management accounting process can also be used to compute the effect of companywide
strategies on the performance of specific units or products.

**Measuring Profitability**

A comprehensive management accounting system analyzes the profitability of a bank from several perspectives. Branch profitability is the value and efficiency of the product distribution network. Product profitability is the contribution of each service or product to net operating income for each service. Profit-center profitability is the net contribution of such functional units as corporate lending, while customer profitability is the contribution of individual customers to the earnings of the institution. Each of these reporting elements emphasizes a different aspect of profitability and reflects different income streams, expense allocations, and techniques for pricing internal funds transfers.

The specifics of management and cost accounting systems can vary widely, but most banking institutions move through the following stages of reporting in measuring their profitability.

**Stage 1: Responsibility, or Cost, Centers.** The cost center is divided into managerial units for planning purposes. Direct income and expense items are budgeted and recorded at each unit level, without allocations of income or expense items from other units. For example, the salary expense of the loan operations department is recorded in that unit, interest income on real estate loans is recorded in the mortgage loan department, and payroll taxes are recorded in the personnel department.

This stage of management accounting improves control over revenue and expense items but provides no real improvement in profitability measurement, because a positive bottom line on a responsibility center report is not the result of directed management actions.

**Stage 2: Profit Centers.** Centers of responsibility that record revenues are deemed to be profit centers. The expenses of other responsibility centers, such as loan operations, or of overhead centers, such as personnel, are allocated to the profit centers. In addition, the profit center is charged a cost of funds for the net funds that it uses. The need for these allocations is usually the impetus for establishing a cost accounting process within the institution. The purpose of these allocations is to match centralized or shared expenses with revenue flows. Continuing the earlier example, the expenses of the loan operations department would be allocated to each loan profit center, whereas the expenses of the personnel department would be allocated to all centers—profit, nonrevenue recording, and overhead.

Because some units are net users of funds and some are net suppliers, profit center financial management must develop an internal funds transfer mechanism (IFTM). It must first define the purpose of the IFTM, which may include measuring marginal profitability and historical profitability, as well as supporting ALCO processes and pricing processes.

In stage 2, management must also choose an appropriate funds transfer methodology. The most common techniques are the following:

- **Average cost**, based on incurred interest costs.
- **Marginal cost**, based on current market rates.
- **Matched maturity**, based on the maturity of the asset and the current yield curve.
- **Single pool**, in which all liabilities are treated as a single source of funds for all assets.
- **Multiple pool**, in which liabilities are divided into more than one pool of funds, and these pools are assigned to various asset groups based on maturity or repricing characteristics.

The chosen methodology for internal funds transfer must fit the intended use of the profit center reports. For example, the average cost method is appropriate for analyzing historical profitability; however, the marginal (or current) cost approach should be used to evaluate current or future profitability. Chapter 2 on planning discusses the marginal cost of funds concept fully.

The single-pool method is simple and easy to use but can provide misleading information about the true source of a unit’s profitability. Because the single-pool method treats all assets as having the same average maturity, it implicitly imputes profit or loss from the interest-rate risk to the unit. For example, if the average maturity of the single liability pool is 2 years, and the maturity of the assets in the real estate lending profit center is 5 years, then the funding benefit of a yield curve whose slope is positive will accrue to the real estate unit, inflating its core profitability. The effect on profitability would be reversed if the yield curve had a negative slope.

The multiple-pool method eliminates the distortion of the single-pool method, because profit center assets whose liability maturities are similar, or nearly similar, can be matched. This method isolates the effects of funding choices to the treasury unit, which is responsible for making these decisions.
The ownership of assets and liabilities must be assigned to each unit so that the net funds used or provided can be calculated for each unit. The bank's operating systems must be able to yield the required data. Many financial institutions measure branch profitability with the profit center approach. The profit center report provides a more dynamic look at the bank than does a responsibility center report, but the profit center report is an unsophisticated measure of profitability, because it does not reveal why a profit center is or is not profitable.

Stage 3: Product Profitability. The desire to analyze profit center profitability in depth leads to the analysis and usually the management of product profitability. A radical departure from profit center accounting, a product profitability system requires organizational restructuring along product lines and extensive management training.

The product profitability system attributes all revenues to the products of an institution, not to the profit centers. These products can be loans, deposits, or services. Computing product profitability requires that all expenses, except corporate overhead, be allocated to the various products; even the operating expenses of the profit centers are allocated to the products. This type of system requires an expense-allocation strategy that differs from the allocation strategy of the profit center system. Thus, the cost accounting department must develop new techniques for measuring and transferring product costs.

Corporate overhead expenses—those that pertain to such functional units as the executive, accounting, human resources, and internal audit departments—should not be allocated to individual products. Doing so would only lower the absolute profitability of each product, without affecting their relative profitability. Even though the effect of such allocations should be neutral across products, product managers will spend a disproportionate amount of time and effort arguing about the appropriate allocations, to the detriment of analyzing the components of product performance. Product managers have no control over the level of these expenses, which are often incurred for reasons other than for the institution's product lines; thus, product performance should not be burdened with centralized costs.

However, corporate overhead expenses are captured in a specific overhead unit in the product profitability system, and the total of these overhead unit expenses should be included in the pricing formulas for products, because these real costs must be recovered through the sale of the bank's products and services. If, for example, the ratio of corporate overhead expenses to total expenses is 15 percent, then the identifiable product expenses included in pricing formula should be increased by 15 percent to ensure sufficient profitability to cover corporate overhead expense. Measures of product profitability provide information for management decisionmaking about product mix, pricing, resource allocation, and strategic planning.

Stage 4: Customer Profitability. Customer profitability is derived from the product system—the unit profitability of each product is multiplied by the number of units sold to a particular customer.

The most advanced institutions use a mix of all four of these management accounting reports to analyze profitability, support planning efforts, measure performance for compensation and incentive programs, and price their products.

Because these management and cost accounting reports contain information on unit costs, net interest spreads by product or unit, and operating volumes and capacity limitations, financial management has a definite role in pricing the products of the bank. Product pricing becomes a challenging exercise in a deregulated environment as competitors use various pricing techniques to gain market share. These techniques can include the following:

- Creating separate prices for products typically sold as a package of services to customers—for example, cash management services for corporate customers, sometimes referred to as “unbundling.”
- Bundling previously separate products into a new product with a single price—for example, club deposit accounts for retail customers, which provide checking, credit card, and travelers check services for one price.
- Offering below-market interest rates for loans and above-market interest rates for deposits.
- Waiving all charges for a product for an indeterminate time period.

The ability to respond effectively to these pricing tactics requires current, accurate management and cost accounting data. Decisions to meet or beat a competitor's price should be based on an analysis of the relative net contribution of the product under attack, the break-even point of the product, and the capacity constraints and advantages in operating areas. Pricing at uneconomical levels for extended periods should be avoided, because the cost of maintaining current market share may
not be recoverable in future periods in a deregulated environment.

Financial management should develop a consistent pricing methodology for each major product group. For example, the pricing methodology for loans would specify that the interest rate and fees on a loan recover both the cost of funds (on a marginal-cost, matched-maturity basis) and all operating costs, such as credit analysis, loan set-up, and ongoing loan processing costs. The price would also include an incremental spread over the bank's funding rate commensurate with the credit risk of the borrower, a recovery of a portion of corporate overhead costs, and a targeted return on assets for the net funds used.

The pricing methodology for deposit products should specify that interest rates be set so that the effective rate on the deposits does not exceed the effective interest cost of alternative sources of funds (for example, money market borrowings) or the cost of processing the deposit account minus any fee income generated by the account. The interest rates on deposits must also be set so that a portion of corporate overhead costs is recovered.

As noted earlier, a disciplined, effective pricing methodology in any banking institution depends on the availability and accuracy of management and cost accounting data generated by financial management.

Financial Accounting in Contrast to Economic Reality

Accounting data that reflect only the historical cost of assets, liabilities, income, and expense provide an incomplete look at the risk exposures of a bank. Current market values for assets and liabilities are required to measure exposure to liquidity, interest-rate, off-balance-sheet, and capital adequacy risks. For example, if a bank intends to sell an investment security to meet increased liquidity needs, the funds provided through the sale of the security will be equal to its market value, which may be higher or lower than its book value. In addition, if a bank wants to compute the duration of its asset and liability portfolios as part of managing its interest-rate risk, then financial management must be able to provide current market values for those portfolios.

Current market values ("marking-to-market accounting") for assets and liabilities are readily available for a wide range of financial instruments that are traded actively in world financial markets.

For nontraded assets and liabilities, estimated market values can be determined from traded instruments whose credit, pricing, and liquidity characteristics can be used as proxies for the portfolio instruments. For example, a variety of high-risk debt instruments (from leveraged buyouts and loans to heavily indebted countries) are being traded actively in a global market. These instruments may provide reasonable approximations for the current market values of various types of project or development loans in a bank's portfolio.

Several industrial countries have recognized the usefulness of marking-to-market accounting, and growing momentum for adopting marking-to-market accounting standards in the United States can be seen in a recent pronouncement from the Financial Accounting Standards Board, as well as in proposed regulatory accounting requirements.

Two factors will encourage the expansion of this trend. The first is the increasing internationalization of financial services. As institutions expand the boundaries of their operations, they require current market values for assessing potential acquisitions and divestitures and for evaluating the financial performance of affiliates that operate in various countries. Marking-to-market accounting would eliminate the necessity of translating multiple cost-based accounting systems into one common approach.

The second factor is that as management uses market values to assess and control risk it should report such information to shareholders to enable them to evaluate the risk-and-return tradeoff of their investment in the institution. However, such reporting must be preceded by an intensive educational effort geared toward helping shareholders and regulators interpret the fluctuations in equity values that may stem from changes in market values.

Although regulators do not require marking-to-market accounting, financial management should recognize its usefulness, develop appropriate techniques for providing the data, and use market values to evaluate the elements of financial risk.

Financial Planning and Budgeting

The financial planning or annual budgeting process creates a set of performance expectations for managing the institution and for formulating compensation and incentive plans for employees. The budget is also an integral part of the risk management process, and deviations from the budget
should be monitored monthly by financial management. In effect, budget variances serve as early warning signs that the actual risk profile of the bank may not equal the desired risk profile in the budget year.

The budget process translates the goals and strategies in the strategic plan into annual operating targets. Capital expenditures, new programs or projects, and financial projections in the strategic plan for the next fiscal year should all be incorporated into the budget. These balance-sheet and income-statement goals provide a basis for operational control in the coming year and can be used to measure the performance of individual managers.

The budgeting role of financial management is similar to the role it often plays in strategic planning: it is responsible for defining the process—the participants and the manner of their participation. Financial management provides a method for preparing and entering budget data and producing reports for review by managers and develops an economic forecast for the next twelve months (usually the period covered by the budget). Financial management also provides data on actual income and expenses for each unit for the current year and, in the bottom-up process, analyzes the individual budgets for senior management. Finally, financial management must meet with managers to review budgets and resolve issues noted in the financial management's analysis, and it must prepare a final budget for board approval.

Financial management must also develop and implement a monthly or quarterly reporting process for comparing actual results against the budget. This process should facilitate variance analysis, both for the entire institution and for individual units. It should also define variances that managers must explain in written reports, and specify corrective actions for the current year.

**Tax Planning and Compliance**

Income taxes paid by an institution affect its capital adequacy, because they reduce net income. Nevertheless, taxes do not affect all profits equally, because tax codes contain exemptions and anomalies that favor one form of profit over another.

Financial management must anticipate changes in a country's tax laws and tax policies and assess the effect of these changes on its future net worth. In addition, financial management generally seeks to minimize taxes payable from current business activities by working with all operating units to identify and capture tax-saving opportunities.

Financial management is also responsible for maintaining tax-related records and for filing tax reports and returns. The accounting process must provide the data necessary for preparing timely tax returns. This requirement is challenging, because changes in tax laws may significantly alter the necessary information.

**Internal Control**

Financial management may be responsible for establishing and updating the organization's internal control policies and procedures and for coordinating management's responses to the deficiencies in internal control that are found by auditors and regulatory examiners. These efforts minimize several elements of financial risk: internal control risk, operating risk, and off-balance-sheet risk (see appendix 4, "Operating and Financial Controls"). Any system of internal control has multiple objectives:

- Maximizing financial goals while minimizing risks.
- Facilitating efficient performance within established operating policies.
- Ensuring the reliability, adequacy, and timeliness of financial information used for reporting and decisionmaking.
- Safeguarding assets.
- Complying with generally accepted accounting principles.
- Preventing or discouraging errors and irregularities.

Financial management should work with the operating managers of each functional area to develop the policies, procedures, and controls necessary to accomplish these objectives. Internal controls should reflect the unique management and operating characteristics of each function and should be based on an evaluation of the risk exposure within each unit.

The bank's internal control policies should cover such major functions as data processing operations, general ledger accounting, application systems, payroll, lending, investment securities, trading activities, deposits, borrowed funds, hedging activities, trust and fiduciary activities, and cash on hand. The basic techniques of internal control include separating functions, reviewing transactions, reporting results, maintaining transaction records, training, providing protective devices, and providing clerical-proof devices.
Separating functions is the most basic tool for designing internal control systems. It establishes levels and lines of authority, the appropriate delegation of duties, and fixed responsibilities.

Transactions may be reviewed before or after they have occurred. Prior review helps prevent improper and unauthorized transactions, as long as the reviewer is aware of the transaction. Review after the fact cannot prevent unauthorized transactions, but it can uncover them. For example, a review of bank reconciliations may uncover the unauthorized use of bank accounts. However, reviews can be effective only if they are thorough and complete enough to disclose errors or omissions, and if the reviewer is independent of the person whose activities are being reviewed.

Maintaining transaction records is essential for sound internal control. Records facilitate reviewing transactions, support the work of internal and external auditors, and form the basis of information reports within the organization.

Training enhances internal control by ensuring that staff members know their duties and responsibilities. It should include an explanation of the relationship of the individual’s duties to the duties of others and to the overall objectives and policies of the bank.

Providing protective devices includes providing locked cash drawers, vaults, secured doors, and cameras. Such devices inhibit unauthorized entry and transactions and should be used whenever and wherever feasible.

Providing clerical-proof devices improves internal control by helping to eliminate unintentional errors when transactions are recorded. These controls include mechanical devices, such as calculators, cash registers, and bookkeeping machines, as well as nonmechanical devices, such as double-entry bookkeeping and the independent recalculation of all totals.

Internal auditors, external auditors, and regulatory examiners test and monitor the effectiveness of the system of internal controls designed and implemented by management. These groups issue reports that outline internal control deficiencies; the reports require immediate and thorough management responses. Financial management is the appropriate institutional locus for interaction with these independent components of the audit process.

Maintaining effective internal control requires constant attention to changes in circumstances and operating environments that can outmode existing controls or create the need for new ones. On behalf of the board of directors, management should conduct regular reviews of the system of internal control, independent of any audit activity, and make appropriate adjustments to ensure that the overall level of control is meeting policy standards. Appendix 4 provides more detail on operating and financial controls.

Organizational Relations of the Financial Management Function

The director of the financial management function—the chief financial officer (CFO)—normally reports either to the chief executive officer or to the chief operating officer. This positioning is necessary to put the financial management function on par with other major line and staff groups within the organization. Functional areas that in turn report to the CFO often include accounting, treasury, planning, tax, economic forecasting, and investor relations. Some institutions do not include treasury operations under financial management on the premise that this line function would reduce financial management’s objectivity when it compares treasury operations with other units. The stronger, alternative view is that treasury operations should be included under financial management, because it provides the daily market information critical to managing financial risk. Treasury also facilitates the information-gathering that supports the management accounting and profitability reporting by financial management, and it implements key elements of strategies for controlling financial risk. Box 4.3 depicts the various units responsible for financial management in a typical financial institution.

The financial management function is associated in several key ways to its counterparts throughout the organization. First, in its roles as alter ego, pulse taker, and analyst, financial management acts as a business advisor to the rest of the organization. If, for example, the lending division is considering a change in the mix of the loan portfolio to emphasize commercial loans over agricultural loans, financial management can advise how the change will affect the risk profile of the bank. Second, financial management provides profitability and performance data to all functions by designing and producing management accounting reports. Third, financial management ensures that asset and liability management policies and decisions are implemented by operating units. Fourth, during the planning process, financial management provides managers with financial perfor-
mance and risk-management targets, facilitates the entire planning process, and participates in management reviews of plans submitted by all functional areas.

**Strengthening the Financial Management Function**

Extensive changes in the operating environment of banks in developing countries increase the magnitude and range of the banks' exposure to the multiple dimensions of financial risk and thus complicate the risk-management process. This rising complexity necessitates focusing the financial management function more sharply and improving coordination and increasing formalization in the organization's decisionmaking process.

Three steps are key to improving the focus of the financial management function in any institution. The first is to develop an explicit, comprehensive conceptual framework for financial management through a series of policy statements. These statements should state the goals of financial management clearly (such as providing specific targets for return on assets and equity, improving planning and implementation processes, and implementing a comprehensive management reporting process throughout the bank) and the definitions and risk-taking parameters for each of the eight elements of financial risk. These statements are required to ensure a common understanding of the overall financial management process throughout the bank.

The second key step is to set up a financial management database that can be used to analyze and monitor each element of financial risk and to facilitate management reporting. This database is compiled from information in the general ledger and the various operating systems that are used to record assets, liabilities, and related interest income and expense.

The third step is to develop the capability to compute the effect of changes in business conditions on the risk profile of the organization. Here, a computer-based model is useful but not essential.

Focusing the financial management function more sharply creates a more coordinated and formalized decisionmaking and management process in a bank, because given that all operating and line units become subject to the bank's financial risk parameters, decisions throughout the organization must be based on a rigorous financial analysis. The need for a more defined focus and coordinated decisionmaking implies two significant organizational features necessary to enable the institution to operate effectively in the new environment. One is a chief financial officer; the other is a formal asset and liability management committee.

**Chief Financial Officer**

The position of CFO, although relatively new to financial institutions, is traditional in nonfinancial enterprises, where the CFO is typically a member of senior management. In nonfinancial businesses,
Building Strong Management and Responding to Change

the CFO is responsible for the sources of funding for the business, both long-term (equity and debt) and short-term (working capital, liquidity, and bank lines); the asset structure of the firm (that is, the optimal mix of cash, accounts receivable, inventory, and fixed assets to achieve earning goals without incurring excessive financial risk); strategic and financial planning; financial (external) and management (internal) accounting; and internal controls. In financial institutions, such responsibilities have typically been spread among various managers, but changes in the operating and risk environment of financial institutions call increasingly for establishing the CFO function within the institution’s organizational structure.

In banking institutions in the United States, the CFO function was first visible in the 1960s, in the money center banks. It is not a coincidence that the function appeared as these banks began to use the concept and techniques of liability management to increase both their rate of growth and scope of operations. A well-defined CFO function emerged in regional U.S. commercial banks as they adopted liability management in the 1970s and as their mergers and acquisitions increased significantly. In addition, the emergence of the secondary market for mortgage-backed securities propelled thrift institutions to develop a CFO function in the mid-1970s. During the 1980s, the CFO function became widespread in U.S. banks.

The qualifications of the individual selected to be the bank’s CFO change as the function matures within the organization. Typically, the position is initially defined as an expanded controller (accounting, tax, profit planning, and asset and liability management), requiring someone with a strong accounting background to ensure familiarity with the technical aspects of the new function. As the CFO role evolves into strategic planning, capital financing, and treasury functions, the critical skills and activities extend beyond accounting and budgeting to include leadership, strategic management, financial policy development and implementation, funding/trading/hedging skills, and investor relations.

The designation of a CFO clearly locates responsibility for shaping the asset and liability structure of the bank and helps open communication channels among various operating units. The CFO provides objective financial analysis, applies the appropriate analytical tools to risk-management problems, and is a much-needed filter for interpreting an increasingly complex working environment.

Asset and Liability Management Committee (ALCO)

The same forces that create a need for the CFO also create a need for a formalized asset and liability management committee (ALCO) within a bank. The definition and role of financial management in the asset and liability management process of a commercial bank was discussed earlier in the chapter; the developmental stages of the ALCO process are discussed here because those stages parallel and interact with those of the CFO.

The evolution of ALCO in commercial banks is a nine-stage process:

1. No identifiable ALCO structure exists within the bank; the chief executive officer makes all asset and liability management decisions.
2. An investment committee is formed to oversee decisions about the bank’s bond and securities portfolios (asset decisions only).
3. The scope of the investment committee expands to include decisions about the bank’s funding or treasury activities (liability decisions).
4. ALCO is formed and replaces the investment committee. ALCO membership is broader and, in many cases, senior to that of the investment committee.
5. A formal staff group is formed to provide analytical support to ALCO.
6. The scope and membership of ALCO expands.
7. ALCO is swamped with information, and decisionmaking becomes increasingly cumbersome. The ALCO process becomes diluted and ineffective.
8. The CFO function is established (or, if it exists, its responsibility for the ALCO process is clearly designated). The ALCO staff support group and the treasury group are transferred to this function.
9. ALCO assumes a policymaking role only, and the CFO becomes responsible for daily decisions.

ALCO should comprise the CFO and other senior managers, such as the directors of the lending, funds acquisition, and consumer banking departments. Additional ALCO members may include the chief economist, the director of planning, and key industry and sector managers. ALCO should meet at least monthly (preferably weekly) to make decisions about balance-sheet structure and off-balance-sheet positions based on an evaluation of the effect of alternate business strategies on earnings and equity under a variety of interest-rate scenarios.
The ALCO and CFO functions are necessary, because new financial management tools alone will not signal the need for expanding the risk-management process to the entire organization. These organizational changes highlight the importance of controlling financial risk by making the financial management function highly visible at a senior level within the institution. They also ensure an effective response for achieving financial management goals.

Conclusion

Effective financial management is an essential ingredient for a successful banking institution in a deregulated operating environment. The financial management of a commercial bank seeks to maximize the value of the bank by enhancing the profitability of the institution and by managing the risk profile of the bank. The key tools of financial management are as follows:

- **The planning process,** including strategic, business, and annual budgeting. These planning efforts establish the goals of the bank and provide valuable feedback for managers so that they can adjust their operations in response to changing operating conditions.

- **The ALCO process**—The asset and liability management committee provides the vehicle for developing policies to manage the bank's capital adequacy, liquidity, interest-rate sensitivity, and off-balance-sheet risks.

- **The treasury function**—The treasury group implements ALCO policies and develops the information necessary to support the bank's internal funds-transfer mechanism for profitability reporting.

- **Financial reporting,** covering management accountabilities, profit center and branch profitability, product profitability, and customer profitability. These reports are the basis for measuring and analyzing performance, rewarding managers, and planning for the long-term profitability of the institution.

Implementing an effective financial management function requires commitment, skill, and discipline. It improves the performance of the bank overall by providing improved management information for planning and decisionmaking, enhancing control over the elements of financial risk, and supporting analyses of the factors that contribute to the bank's profitability in the context of various operating scenarios.

Notes

1. The purpose of economic regulation is to advance economic management and development and to further social goals. Examples of specific economic regulations and their aims include reserve requirements to control money creation, directed credit and credit allocation to further social and developmental objectives, and taxes on financial transactions to generate government revenues. In contrast, the purpose of prudential regulation is to ensure the safety and soundness of individual institutions and the financial system as a whole. Examples include limits on exposure to a single borrower, group, or sector; guidelines on capital adequacy and liquidity; and rules on loan classification, loss provisioning, and the cessation of interest accrual.

2. The degree of securitization within an economy depends on the availability of timely, accurate, and credible financial information on borrowers; the development of appropriate legal forms and contracts that create homogeneous ownership units; and the ability to trade the units in active markets. Each of these factors increases the willingness of nonfinancial institutions to participate in the securitization process, which adds both breadth and depth to the market for these securities. The growth of the securitization process may affect the profitability and risk profile of financial institutions. Because securitized debt normally is less expensive for highly rated borrowers than are loans obtained from a commercial bank, banks are forced to lower their lending rates to compete for highly valued customers. This action reduces interest-rate spreads and profitability. Seeking to improve their earnings, banks sometimes turn increasingly to higher-risk activities, such as lending to less creditworthy borrowers.

3. The accompanying volume, *Interpreting the Financial Statements,* includes the full text of this agreement.

4. For another view of the thrift crisis, see Andrew Sheng, *Bank Restructuring* (forthcoming).
Building Human Capital for Banking

Donald G. Carlson

The ability of any institution to execute its strategy and achieve its goals depends on whether it can organize, develop, and manage its human resources effectively. In banks, human resource management must respond to four fundamental objectives:

- **Organize people to work effectively.** A key starting point for effective human resource management is to build an organizational structure that is designed specifically to carry out the bank's mission and strategy. This structure will define the bank's manpower needs in the most basic terms—the number and levels of employees and the skills they require to operate the bank successfully. At the individual level, jobs and tasks must be defined. At both the unit and individual levels, responsibilities for achieving results must be defined. Once the organizational structure and job responsibilities are defined, capable people must be placed in the jobs and oriented to their responsibilities as quickly as possible.

- **Optimize staffing levels and skill mix.** A bank must have the right number of people with the right mix of skills—both in each unit of the organization and across the entire organization. The bank must also be attuned to shifts in staffing and skill requirements as it responds to present and future needs.

- **Build the right skills and work culture.** A bank must have staff who offer the necessary range of job-specific skills, and whose attitudes toward their work and colleagues enable them to channel their skills and energies into performing productively for the bank and its customers. Thus, a bank must identify and promote the necessary skills and attitudes that collectively comprise the institutional culture of the bank.

- **Manage individual and unit performance to achieve institutional goals.** As banks become large and complex, and face increasing external pressures, competing internal demands, and scarce resources to meet these demands, achieving desired performance results becomes increasingly difficult. Meeting performance goals requires leadership and management—insightful leadership, and skilled, focused, and active management.

All four objectives pertain directly to managing the business of the bank. An ineffective organizational structure will not enable the bank to execute its mission and strategy, meet its financial and developmental goals, or thrive in a competitive environment. Excessive staffing will increase costs—for both the bank and its customers. It will also erode the work culture and hamper efforts to improve performance. Insufficient staffing in any unit of the bank will spread responsibilities too thinly, preventing the unit from assuming its required role in the effective functioning of the bank. Inadequate skills will have the same effect—unskilled staff will not be able to perform their jobs effectively, thus adversely affecting the bank's performance. A counterproductive work culture will lead to poor performance, staff attrition, organizational inefficiencies, an inability to compete successfully against other institutions, and will be the primary roadblock to efforts to improve performance. Even with the right resources in place, achieving institutional objectives will be difficult if performance is not managed, day-to-day and in the long run, toward clearly articulated standards.

In essence, a bank that excels in human resource management has the key resource for building and maintaining a healthy bank, helping customers and the nation thrive economically, and providing good working conditions for its work force.

Woven through each of these four fundamental objectives is a fifth—meeting the needs of employees. In building and operating a modern bank, we expect many hundreds or thousands of persons to devote a major segment, if not all, of their working careers to the institution—to accept its mission, goals, and evolution, to build their skills and devote their energies toward achieving those goals, to help colleagues learn and conduct their work,
and to help customers conduct their banking business effectively and efficiently.

In meeting these corporate obligations, employees have personal obligations—for their own support and living standards, and, in most cases, for the support of their wives or husbands, children, parents, or others. They look to the bank for proper remuneration, decent working conditions, interesting work, opportunities for learning and career advancement, and an environment to engage in social interactions. As we manage the business of the bank, and manage our human resources, we must continually consider the needs of the employees. If they are well met, we will have made a substantial advance in building the human resource complement necessary to serve the needs of customers and to ensure the success of the bank as an institution and a business.

This chapter describes how banks in developing countries can meet these five fundamental objectives. It describes a series of systems that are basic for achieving each objective, defines the organizational requirements for implementing and utilizing these systems, and outlines special issues faced by developing country banks in conducting effective human resource management. The chapter concludes with a framework for diagnosing and developing the human resource dimension of the bank. Before discussing each of these objectives, we provide the staffing and organizational context for effective human resource management.

Human resource management is the responsibility of all managers—line managers in every area of the bank, and personnel and other specialized staff managers—and it affects all staff members, from the top to the bottom of the organization.

Line managers play the key execution role. They build their units and develop their staff and manage their performance daily. In so doing, they combine their human resource management skills with the various human resource management policies, procedures, and tools developed by the bank. With this knowledge, they execute key human resource management programs for their own use and for the use of the bank.

Senior management plays the vital leadership role. It sets the strategy, goals, and standards that govern the work of managers and all other employees. By its examples, and through its direction and guidance, it builds or reinforces the work culture of the institution. It determines whether the bank must redirect its business or improve or correct existing practices and it defines the procedures for doing so. In effect, senior management leads the institution in an abstract sense, but it leads the entire work force in a concrete sense.

Personnel, training, and other managers and their staff play important leadership and support roles. They recommend policies in the human resource area, and build procedures for implementing those policies. They help line managers build their human resource management skills. They develop and implement the programs and tools required by line managers to promote human resource management. In many banks, they exercise quality control over the development and implementation of human resource management. And they provide vital support, such as recruitment, training, administration, and record-keeping.

In different countries and in different banks, these management roles may vary. For example, in some countries, personnel managers make many of the recruitment, training, placement, transfer, promotion, or remuneration decisions that in other countries are the responsibility of line managers or the board of directors. In other countries, personnel managers play primarily administrative roles. Thus, some flexibility in the allocations of managerial responsibilities may strengthen human resource management.

Numerous systems and subsystems comprise any bank's human resource management. About twenty such systems are truly key to achieving the fundamental objectives of good human resource management (box 5.1). Each system is discussed in the body of this chapter.

These systems are action-oriented, directed toward achieving specific results from organizing, developing, or managing human resources. They do not deal with the administrative side of human resource management, such as transactions involving payrolls, pensions, medical expenses, housing, training support, and employee records; these aspects are important for improving the morale and effectiveness of employees and achieving cost efficiencies, but they do not match the complexity or the potential leverage of the more functional systems on business results.

Objective 1: Organize People to Work Effectively

In many countries, particularly in developing countries, state-owned and other nonprivate banks tend to be relatively large institutions in terms of total employment. Banks with 5,000 to 10,000 employees are common. Some banks have 30,000, 50,000 or more employees. Some banks have a high con-
Building Strong Management and Responding to Change

Box 5.1 Key Systems in Effective Human Resource Management

Objective 1: Organize people to work effectively
- Organizational structuring
- Responsibility definition
- Job structuring
- Requirement-based staffing

Objective 2: Optimize staffing levels and skill mix
- Optimization of current staffing levels and skill mix
- Response to the changing demands for human resources

Objective 3: Build the right skills and work culture
- Skill and attitude needs analysis
- Individual assessment
- Training and development
- Institutional culture development
- Capability-based recruitment and selection

Objective 4: Manage performance to achieve business goals
- Leadership development
- Business planning
- Goal setting and action planning
- Performance monitoring and measurement
- Rewards management
- Career motivation
- Hands-on management

Typical concentration of employees in their headquarters offices. Most have their highest concentration of employees in branch systems.

Within this large complement of employees, several levels of managerial, technical, clerical, and other staff are distributed across fifty or more product, service, or skill areas. They conduct a wide range of activities. Hundreds of transactions are conducted to support deposit taking, lending, fee-based services, asset and liability management actions, treasury products, customer records, bank records, internal and external reports, personnel administration, and purchasing.

And more than in most types of companies, banks are a web of interrelationships. For example, the branches provide data to accounting, which provides data to the management information system, which provides reports to managers, who monitor actions and results at the headquarters, regional, and branch-level offices. Credit analysis, approval, administration, and monitoring may move through several departments at the branch level, up through parallel departments at the regional level and into the headquarters office.

Within the complex environment of today's bank, demands are spiraling. Bank employees must deal with an increasingly broader array of customer products and services. Retail and corporate customers are expecting more efficient and more knowledgeable service. Customer loyalty is more transient. In many instances where they have choices, customers will readily take their business to banks that offer the best products and personal services.

Similarly, external requirements are increasing. Government, public, and private shareholders are expecting better performance than in the past. Subsidies are being phased out, sometimes very quickly. Deregulation is advancing rapidly in some countries. Banks are increasingly expected to stand on their own. And the banks' balance sheets and profit-and-loss statements are increasingly being subjected to open scrutiny under international accounting standards, where current or potential insolvency is being revealed and corrective actions are being demanded. Some countries have set high and potentially conflicting demands—continuing directed or subsidized lending, controlling interest rates, and financing the government, while demanding that the banks be solvent and profitable. Bankers are caught in the middle. But even when banks can operate relatively freely as businesses, new demands for adequate capital, high quality credit portfolios, and profitability are difficult enough to meet.

To operate this complex and interrelated series of functions effectively, and to meet the growing internal and external demands, banks must organize the typically thousands of staff members to work effectively. They must develop an organizational structure to achieve specific results; clearly define responsibilities for results; structure individual jobs to meet work requirements; and staff organizational units with the right number of persons with the right skills to meet the mission and goals of the unit.

Organizational Structuring

The starting point in human resource management is organizational structuring. The bank's mission, strategy, and operational plans will define the bank's purpose, goals, and objectives, the strategies and tactics for achieving them, its products and services, and its target markets (see chapter 2, "Planning"). The bank will organize its structure
to achieve this strategy and carry out its operational plan. Different strategies, different products and services, different corporate objectives, different local conditions, and other key factors—all shape the nature of the organizational structure that is best suited to operating the bank.

Whether executing a new strategy or simply improving the effectiveness or success of the institution, many banks must now, or will soon be forced to reorganize. Organizational restructuring can follow many paths, ranging from targeted improvements to fundamental restructuring. Banks in developing countries face a range of organizational problems and challenges:

• An insufficient focus on specific markets or on customer service.
• A diffuse leadership structure, more suited to a social organization than to a business. (In the most extreme cases, 10 to 15 head-office divisions and 100 to 200 branches may report directly to "the board.")
• Undefined responsibilities of units or individuals, especially responsibilities for results.
• The absence of several critical functions—planning, credit policy and supervision, management information, marketing, asset and liability management, and operations analysis—or substantially underresourced functions—technology, audit or inspection, training, and problem-loan management.
• Fragmentation of important functions into two or more independent units, and the overlap of some other functions.
• Weaknesses throughout the credit management organization, particularly in credit analysis, the monitoring and supervision of borrowers, and problem-loan management.
• Inefficient operating structures and work flows in branch, headquarters, and regional offices and staff units.
• Outdated or inappropriate authority levels—in many cases, too low to operate efficiently, or too high for prudent control.
• Bureaucratic management processes focused largely on procedures and record-keeping rather than on efficient, profitable, customer-oriented action.
• Underdeveloped managerial processes in several areas—strategic and business planning, performance monitoring and measurement, goal setting and action planning, management controls, and communications.
• Inadequate management information to support the existing organization, let alone a more modern organization, and the insufficient use of available information.

Improvements may be targeted at various operating components—the branch system, to improve the efficiency of and the customer services offered by individual branches, or to rationalize the number of branches and their locations; the regional office system, to strengthen its role in managing the results of the branches and supervising their operations; the headquarters office, to rebuild key staff units, give the right focus and priorities to each functional unit, strengthen leadership, improve direction and control, or improve the efficiency of operations and customer service; or the bank overall, to expand and improve management processes, improve controls, update authority levels, or upgrade the flow, timing, and usefulness of management information.

A more fundamental restructuring would focus directly on resolving existing problems and, looking forward, meeting the organizational requirements of the bank's business strategy. Several types of actions could be required.

First, to establish the basic organizational units required to implement the bank's strategy and manage its ongoing operations, a bank must:

• Create product and market-oriented business units responsible for building and managing profitable "businesses" within the bank in discrete areas targeted by the strategic plan, such as retail and small businesses, mid-size companies, large corporate and government entities, international, and treasury products.
• Create head-office support units with clear and discrete charters (and adequate, qualified staff to carry out those charters), in such areas as technology, operations policy and analysis, treasury (including asset and liability management), accounting, management information, planning, budgeting, personnel, training, marketing, public relations, advertising, legal, administration, credit policy, credit control, and audit.
• Create parallel units or skills at the regional and branch levels to build the breadth of banking skills and resources required throughout the organization (for example, accounting units are required at the head-office, regional and branch levels, but only senior-management planning skills are required in most regional offices and branches).

Second, to rationalize and upgrade the bank's main operating units, that is, the branches and the regional management offices, a bank must:

• Restructure individual branches to deliver the bank's target products and services efficiently
in that market, and bring each branch up to a

target level of profitability through restructuring

or other actions, or merge, sell, or close it.

- Rationalize the regional office system so that

large and geographically dispersed branches are

managed and supervised effectively.

Third, to integrate the many units of the bank

and optimize leadership, control, customer ser-

vice, and efficiency, a bank must:

- Provide an effective leadership structure—

from the board of directors down through senior

corporate management, middle management, re-

gional management, and branch management—

so that management roles and responsibilities are

clear and accepted throughout the organization.

- Integrate effective management controls by

implementing policies and procedures, allocating

supervisory and control responsibilities clearly, and

establishing fully staffed and qualified control

units.

- Build a customer service structure and cul-
ture into all operating units; establish practical cus-
tomer service standards and organize the respon-
sibilities, operational processes, physical layout,
equipment, staffing, skills, and attitudes to meet

those requirements.

- Build efficiencies into the operations and sup-

tport functions of each branch, regional, and head-
quarters office, and into the several key work flows
throughout the organization—accounting, inform-
ation, customer records, loan and deposit pro-
cessing, employee records, credit management, and

human resource management, and auditing.

And, fourth, to build the basic management

processes and management information structure

necessary for operational efficiency, a bank must:

- Create or upgrade basic management pro-
cesses, such as strategic and operational planning,
goal setting and action planning, performance mea-
surement and monitoring, decisionmaking, com-
munications, credit management, financial man-
agement, human resource management, and au-
diting. Building an effective management process
involves a range of actions—developing the poli-
cies and procedures underlying the process, allo-
cating responsibilities for using the process

throughout the organization, and training people
to operate each stage of the process.

- Build an appropriate management informa-
sion system. Since a key objective of any organiza-
tional structure, but particularly a bank, is to facili-
tate the flow of information for managerial deci-
sionmaking, a structure and system is essential for

providing an information flow that is relevant and

useful for decisionmaking in all line and support

units, as well as for meeting internal and external

reporting requirements.

Restructuring requires building new structures

and processes for the many unique environmental

factors facing each bank—the technology of the

bank and the planned evolution of that technol-
gy, the immutable characteristics of the work
force, the social culture of the nation, the charac-
teristics of the bank’s customers in its several mar-

kets, the nature of competition, banking regula-
tions, and the political and economic climate. Each

of these factors can force the bank to adapt to or

take advantage of the factors in specific ways.

It is clear that a fundamental restructuring is

not a simple or routine task, nor can it be accom-
plished quickly. Two to five years may be required

to restructure a large, multibranch bank funda-

mentally. But if a bank must significantly improve

its performance, or if its strategic plan calls for

major change in direction or outcomes, then funda-

mental restructuring may be necessary to real-
locate the bank’s resources to achieve the change.

Old organizations, particularly those rooted in a
different era of banking, typically cannot meet
today’s demands.

Any reorganization will trigger change in hu-

man resource management. Indeed, organizational
change and human-resource change are inexora-
bly linked. Moreover, a reorganization provides

both an opportunity and guidance for rethinking

and upgrading the effectiveness of human re-

sources:

- Internal redeployment will be required to

staff new units, staff underresourced units fully

use staff from reduced or eliminated units, pare

down overstaffed units, and reallocate scarce tal-

tent based on new priorities.

- New training and development will be re-

quired to meet the skill requirements of new, ex-

panded, or upgraded units, and of employees who

are redeployed to different jobs. A major organiza-
tional restructuring will also reveal skill weak-

nesses that have been tolerated in the past, but are

now unacceptable.

- Increased or refocused recruiting will be re-

quired when internal redeployment or training and
development are impractical or would take too

long.

- Outplacement may be required to reduce

excess staff that cannot be placed usefully else-

where in the bank.

- Job-performance and potential appraisal sys-
tems may required upgrading to give managers
valid and reliable individual appraisals for redeployement, promotion, development, and outplacement decisions.

- Changes in the institutional culture may also be required to execute the new organization properly. For example, the new organization may call for a greater business orientation, an increased focus on generating profits, higher work standards, an increased focus on customer service, a higher level of cost-consciousness and efficiency, quicker responses to internal and external requirements, better anticipation of problems, more creative solutions to problems, and, in general, more active, results-oriented management.

- Changes in job rankings, job descriptions, and remuneration will be required as the reorganization changes, and clarifies the relative importance of existing jobs.

- Remuneration systems may also have to be changed to increase incentives and rewards for adopting new organizational behavior and achieving new organizational goals, and to reduce incentives for old behavior.

It is clear that a key starting point for effective human resource management is an organizational structure that is designed specifically to carry out the bank’s mission and strategy. This structure will define the institution’s personnel needs in the most basic terms—the number and levels of employees and the skills required—and may trigger several changes in human resource deployment and practices.

**Responsibility**

Organizational units often operate from year to year knowing what they are supposed to do but not what they are supposed to achieve. For example, a credit analysis unit may run a mechanical series of steps to prepare a standard credit report, rather than truly identify the creditworthiness of a borrower. A training unit may conduct or arrange training on demand, rather than project the bank’s priority skill requirements and address them on an ongoing basis. A branch may simply process deposit and credit transactions, rather than manage its costs and revenues to produce an adequate profit. And an audit unit may fill out a checklist and issue a report, rather than help the manager of the audited unit improve the unit’s operations, controls, or outcomes.

In today’s banking environment, where national priorities, customers’ requirements, competitive pressures, or unacceptable financial results necessitate improving the performance of virtually all units within the bank, it is essential that each organizational unit have a clear definition of what it is supposed to achieve—that is, its responsibilities for results.

- **Define the results for which the unit is responsible.** This objective seems obvious, but, as mentioned earlier, most descriptions of unit responsibilities deal with activities, not results. Defining results means going back to the reasons that the unit exists—its role in the bank. Once the basic purpose of the unit is defined clearly, its major objectives must be identified—in qualitative terms, not necessarily quantitative terms. A description of the unit’s purpose and objectives thus clarifies what results it should produce. Any unit for which results cannot be defined perhaps has no reason to exist. (Note that defining results clearly the first time is not a simple step. It will reveal all ambiguities, overlaps, and gaps in responsibilities across units and throughout the organizational hierarchy. Nevertheless, determining these inconsistencies is part of the importance of this step—to resolve them so that each manager knows exactly what results he or she is responsible for.)

- **Institutionalize the definitions of results.** Document each unit’s responsibilities for results; incorporate them in the written description of the unit; communicate them to unit staff; rely on them during operational planning, goal setting, and budgeting; and update them as the unit’s role changes.

- **Monitor the implementation of each unit’s defined results until a clear focus on those results is a normal part of a unit manager’s behavior.** As noted earlier, planning, goal setting, and budgeting should be based on the unit’s defined results, as should performance monitoring and measurement. The performance appraisal and remuneration of unit managers should perhaps be based, at least in part, on whether their unit has achieved its defined results. This incentive-based method can have a powerful effect on making managers and staff focus on results. (Remuneration is discussed in the section, “Objective 4: Manage Performance To Achieve Business Goals.”) Applying defined results to these planning and performance processes will enable senior managers to know clearly when each unit’s management has achieved a proper focus on results.

Beyond defining responsibilities for results, organizational restructuring requires defining several other dimensions of new or modified units—the basic functions that are expected of the unit, the work activities that are normally required to
conduct each function, the expected role of the unit relative to the roles of other units, and the authority of the unit managers. This overall description of the unit serves a few key purposes: it tells unit managers and staff what they are supposed to achieve; it tells other units what role each unit is expected to play; and it provides a sound basis for conducting a staffing analysis for each unit.

**Job Structuring**

Similarly, individual job holders must know their responsibilities for results in addition to their job functions. This is as true for tellers, accounting clerks, credit officers, and branch managers as for the most senior managers in the bank. Job structuring, or job design, is a large subject that has been examined extensively by academics and practitioners over the years. This section does not go into a detailed discussion of job structuring, but a few key points are noteworthy for banks in developing countries.

When the organization is restructured or when major banking processes are being introduced or modified, existing job designs might not be sufficient for achieving planned results. A bank that is making major improvements should study the design of individual jobs at the same time, and, in so doing, take a fresh approach to job design. Old job designs, built in a different era under totally different business and social conditions, may no longer be useful for meeting today’s requirements.

Jobs must be structured within a work unit to ensure their effectiveness, efficiency, and flexibility, and to engender the motivation and satisfaction of job holders. Following solely classical or industrial-relations theories of job design that focus largely on optimizing efficiency by simplifying, routinizing, and specializing all jobs is no longer sufficient. Banks need good performance from each individual, each work team, and each unit to meet the demanding performance requirements of the institution. People will not be productive if their work is unmotivating and unsatisfying. Nor is it sufficient to have jobs whose responsibilities and functions are not defined at all or are defined vaguely. The highly integrated nature of bank functions and overall cost pressures no longer permit defining jobs loosely and having excess staffing.

A key choice in job structuring is whether jobs should be designed for individuals or for work teams. Several major banking functions—customer service in a branch, branch accounting, auditing, credit approval, certain aspects of asset and liability management, and planning—require much group interaction, a “team approach.” Job structuring should acknowledge this reality, and jobs should be designed to enhance the effectiveness of the entire group. Of course, many jobs in a bank are individual jobs and can be designed as such, but the responsibilities and functions of each job should be allocated specifically to optimize effectiveness, efficiency, and flexibility, and motivation and satisfaction.

Job descriptions are an effective tool for documenting job structuring. A reasonably comprehensive job description would include the following:

- Job identification
- Job responsibilities, described as much as possible in terms of responsibilities for results
- Job duties
- Organizational relationships
- Authority
- Performance standards or output requirements
- Interactions with others
- Equipment and materials used.

Not only are good job descriptions an important tool for enabling supervisors to communicate the nature and expectations of a job to their staff, but they also provide an objective resource for personnel analysis, recruitment, staffing, performance appraisal, remuneration, and for identifying training needs. But a job description can be only as good as its underlying job design.

**Requirements-based Staffing**

Once the organization is structured effectively, the responsibilities of the units are defined, and jobs are structured (all on paper), the organizational units and their jobs must be staffed with persons who have the right skills and attitudes for the jobs, or the ability to learn the skills and develop the attitudes necessary for performing their responsibilities.

Most restaffing will be done in existing units that already have a complement of staff, who may be more or less qualified for their current jobs. Staffing new units would follow essentially the same process, but would be staffed from a “zero base.” Requirements-based staffing requires several planning, assessment, and redeployment actions.

First, banks must review the array of jobs in each unit and estimate the number of persons re-
required to staff each job according to the anticipated workload of the unit (discussed in the section, "Objective 2: Optimize Present and Future Staffing Levels and Skill Mix"). Second, banks must define the skills and skill levels required by each group of employees (discussed in the section, "Objective 3: Build the Right Skills and Work Culture"). Third, banks must assess the skills and performance and the training, promotion, or transfer potential of the persons already in place in each unit (discussed under objective 3). These first three steps encompass highly technical components, and require some important judgments.

The final step—one that requires the most difficult decisions—is determining who can be placed in what positions in the new organization. Ideally, a unit should retain staff who are reasonably qualified for the existing or new positions, or who can be brought up to a reasonable level of skills within an acceptable period of time. Those who are unqualified or cannot acquire the necessary skills within a reasonable time would be moved to jobs for which they are qualified, or, in the absence of such jobs, would be released from the bank. Empty jobs would be filled through the promotion or transfer of qualified or capable persons from other units, and through recruitment if none is available internally. Excess staff would be released from the bank.

All of these decisions are difficult. But performance typically cannot be improved without significantly upgrading and redeploying some of the workforce. Compromises will slow, diminish, or prevent performance improvements. A basic tradeoff may be necessary between retaining incapable and excess staff and meeting the goals of the bank fully. These goals are not abstract or theoretical—they typically include meeting developmental objectives at the national level, keeping the cost of borrowing as low as possible, protecting the assets of depositors, and maintaining the solvency of the bank.

Unfortunately, banks in many developing countries will require a long time to staff each job with reasonably qualified persons. In many banks, the skill levels of a significant segment of the workforce are insufficient. The labor market of persons with banking skills or persons who can be trained in these skills is limited. And internal resources for skill-building are usually quite limited. But banks that are seeking major performance improvements must tackle these obstacles. The remaining sections of this chapter address the key aspects of this staffing challenge.

**Objective 2: Optimize Present and Future Staffing Levels and Skill Mix**

Whether an organizational restructuring or a staffing-level and skill-mix analysis is necessary, most banks in developing countries face difficult challenges in optimizing staffing levels and skill mix. One challenge is simply identifying the correct staffing levels and the required skill mix. Another is dealing with the difficult social, political, and human issues that arise when a substantial reduction is necessary. Still another is finding skilled staff to fill urgently needed positions, or, if they cannot be found, identifying staff with potential and orienting them quickly.

Excess staffing is a problem from several perspectives. Excessive cost is one obvious problem. Some banks may be overstaffed by 30 percent to 40 percent. Their personnel costs may run from 1 percent to 2 percent of assets, including an excess of .3 to .8 percent of assets, which may cut profitability by up to 50 percent.

A second and perhaps more harmful effect of significant overstaffing is its corrosive effect on the work culture. When fifteen people in a work unit are doing the work of ten people, the work tends to be spread around so that no one has a full day’s work, or most of the work is heaped on a few highly competent persons and the rest have little to do. Overstaffing typically does not translate into superior customer service or continual improvements in products or processes, but rather into a general slowdown and lessening of demands on all but a few workers. Thus, when higher demands must be placed on workers or managers, they clash with an ingrained undemanding work culture that resists, slows, or prevents better performance by individuals, units, and the bank.

A third problem is that overstaffing forces banks to hire, retain, and even promote persons who are only marginally competent for their jobs. This concession builds a complement of “dead wood” (as bankers in several countries call it) that weakens the overall work culture, contributes directly to poor performance in units, and hampers efforts to improve performance and modernize operations overall.

This complement of “dead wood” (which some banks estimate to be 10 percent to 20 percent of their staff) also represents a human problem. Many are middle-age or older, hired in a less demanding period than today. They may have devoted their entire working careers to the bank, and their performance may never have been critically appraised.
Building Strong Management and Responding to Change

They may have children to educate and families to support—sometimes quite extended families—and they have few job prospects outside the bank. Perhaps some can be revived through better management, candid performance appraisals, clarification of performance requirements, and individual training and development. But many cannot. The bank can continue to bear the costs of supporting them, but outplacement with generous severance benefits and perhaps training for an alternative occupation may be the best and the necessary solution.

Insufficient staffing is a more obvious problem, and it is pervasive, even in banks that are overstaffed. For example:

- For technological functions, staffing frequently cannot support existing applications, and cannot cope at all with planned technological enhancements, particularly in systems planning, development, maintenance, and quality control.
- Several other important banking functions are typically insufficiently staffed for their role—for example, marketing, planning, asset and liability management, operations analysis, training, auditing, certain nonadministrative personnel areas, and certain areas of credit management, particularly credit monitoring and problem-loan management.

The basic result of insufficient staffing in a unit is that it cannot fulfill its required role in the organization. Insufficient staffing in problem-loan management means that problem loans retain their status too long and begin to deteriorate. Insufficient staffing in a training unit prevents the bank from meeting its skill needs.

The wrong skill mix, usually evidenced in skill deficiencies, is of course a critical weakness for any bank. Yet it is endemic among banks in developing countries. For example, serious skill shortages are typically found at the officer and management levels in such critical functions as credit, treasury, international finance, human resource management, technology, and audit. Conversely, banks often have an excessive number of clerks, administrators, secretaries, and tellers. In other words, many banks have serious shortages of the higher-order banking skills, and an excess of lower-order skills.

Therefore, banks must take active, creative, and humane steps to optimize staffing levels and skill mix—both currently and over a period of at least five years. This section discusses how banks can define and achieve the right staffing levels and the right skill mix in each unit.

Optimizing Current Staffing Levels and Skill Mix

A banking organization comprises many different jobs located at ten to fifteen hierarchical levels. Once the number and types of these jobs and the number of levels have been rationalized through organizational and job restructuring, a bank must then determine the right number of incumbents required for each job. Some jobs will not have been modified through restructuring, but may still have too many or too few incumbents. Some jobs will have been modified and may require fewer or more incumbents. Some new jobs will have been added, and some existing jobs will have been eliminated. The challenge here is to determine the right staffing levels today in each job, each unit, and the bank overall. (The next section of this chapter deals with determining future staffing levels.)

Banks can use several strategies, ranging from highly subjective to highly quantitative. When managers know their operations well, have a good sense of the right number of persons required to ensure effective functioning, and are part of a culture that motivates them to use staff efficiently, subjective approaches can work well. Banks can ask unit managers to define their staffing needs periodically, challenge their thinking, and agree on the right staffing level. Unfortunately, many managers (in both industrial and developing countries) do not have the skills required to make these judgments. Thus, some quantitative techniques are required.

Banks in developing countries can be reasonably quantitative in optimizing staffing levels. Banks hold a wealth of data—on the number of customers, the number of accounts, the number and depth of audits, the number and length of training courses, the number of processing transactions, the number and types of reports, and daily, weekly, monthly, and seasonal traffic patterns in branches. Moreover, most activities are standardized and repetitive, and are subject to reasonably confident historic analysis and projection. Not all of these data are compiled in useful ways in all banks, but the potential for using quantitative techniques for staffing analysis certainly exists.

Three quantitative techniques are particularly useful in banks: workload analysis, relationship analysis, and modeling.

Workload Analysis. Using this strategy, a manager first breaks down the work in his or her department into its discrete parts—for example, processing a deposit, processing a specific type of
Building Human Capital for Banking

credit application, conducting a specific type of accounting transaction, conducting an employment test, developing a training program, processing a legal document, and designing a simple computer program. Second, the manager estimates the amount of time it normally requires to complete that unit of work, most typically in work hours. Third, the manager projects the number of such work units that will be produced in the year (based on historic patterns, the department’s operating plan, and any other relevant factors). Fourth, the time per unit is multiplied by the number of units to be produced in a year to yield the total annual work hours required for that unit of work. And last, the manager divides that number of work hours by the available work hours per person per year, yielding the number of employees required for that element of work this year.

This strategy is most applicable when the work can be described according to specific work units or outputs, when the work is routine and repetitive, and when one or more work units are assigned to specific jobs—for example, branches, credit departments, audit departments, many accounting departments, personnel administration departments, many technology departments, and indeed most parts of the bank.

RELATIONSHIP ANALYSIS. This method entails relating one factor with another, either to forecast workloads and then use this forecast to project staffing requirements or to forecast staffing requirements directly. For example, relationships should exist between the number of customers in a branch and the number of customer service staff, between the number of retail loans and the number of retail credit staff, between the number of branch audits conducted and the number of auditors, and between the number of borrowers and the number of lending officers.

Each unit manager should identify these relationships, calculate the relationship over, say, the previous three years, and then project how the historic relationship will or should change in the current year based on automation, better work flow, work simplification, and better training. The manager then uses this relationship to project staffing requirements for that function for the year.

MODELING. A very basic form of modeling is particularly appropriate in banks with a large number of branches. That is, banks should build two, three, or four “model” branches—representing a cross-section of the main types of branches in the bank—and perfect them in such areas as customer service, processing efficiency, control, and other operational standards. The bank would then implement one model or the other in the rest of the branches in the bank. Banks can develop relationships between the volume of different types of standard transactions and personnel requirements, and use them throughout the branch system to match staffing requirements closely to the specific products and services and work volumes of any branch. Since 80 percent to 90 percent of the employees are in the branch systems of many banks in developing countries, optimizing staffing in the branches has a high payoff.

Most units in a bank can use quantitative techniques to estimate their staffing requirements. Optimizing staffing levels is extremely important for a bank. It is worth stretching a bit to find a quantifiable basis for staffing decisions, even when they are not at first obvious. Training line managers to do so is a very worthwhile investment.

Nevertheless, not all staffing decisions can be made on a quantifiable basis. Judgment will be required. Even when a quantifiable basis exists, judgment must be applied to the ultimate staffing decision. For example, attaining a targeted increase in training may require an increase in staff that the bank cannot afford. In this case, the target must either change or be attained over several years, with incremental, affordable increases in staff. Still another point to be made is how to plan for the right skill and quality mix. It is of course important to have the right mix of skills in a unit for the unit to play its role in the bank effectively and achieve its required results. Moreover, some units need higher-quality staff than other units, because they handle a more important clientele, make higher-risk transactions, or perform more judgmental tasks. In both cases, banks must identify each unit’s skill and quality demands before they can balance these demands across the organization and allocate scarce talent where it is most needed.

Good job descriptions should define the skill requirements clearly for each job. When a bank has prepared good job descriptions, and staffing requirements have been defined objectively, the required skill mix is a direct result. A bank need not go further. In banks that do not have adequate job descriptions, skill requirements must be defined. Doing so means taking the hierarchy of jobs in the unit and identifying what skills are required for each job. (See objective 3 for a related skills-identification process.) A credit unit requires a
range and hierarchy of credit skills. A computer systems development unit requires its own specific collection of skills. Each set of skills must be identified so that each unit can be staffed as well as possible with qualified persons when the bank implements its redeployment plan. Since skill deficiencies are common, not all units will have a full complement of qualified staff, but staff who are qualified can be allocated where they are most needed. Training and development will be required to qualify the remainder.

Similarly, quality requirements must be defined. This task is simpler, merely requiring that the bank identify those units which require higher-quality staff than the rest. For example, a bank wants the best problem-loan staff to work on their most important problem loans, the best credit staff to work with their most important or difficult credit customers, the best lawyers to work on the most important legal matters. A strong case can also be made for having some of the best staff in the bank in training positions and in audit positions. Optimizing the quality of staff starts with unit managers identifying where they need higher-quality staff and ends with negotiations between higher-level management and the human resource division about the availability and allocation of such staff.

Response to the Changing Demand for Human Resources

There was a time when long-range personnel planning was not as important as it is today. The business of banking was relatively stable; change was slow. The employee population was stable. The public education system provided reasonably adequate skills for entry-level jobs. And skills or work culture required little distinctiveness. Recent years have created a very different picture:

- The business of banking has become quite dynamic. Products and services, delivery systems, technologies, communications, customer requirements, shareholder requirements, and regulations are changing rapidly. Concurrently, risks are increasing, and government bodies are scrutinizing bank operations and outcomes more rigidly.

- In many developing countries, competition among banks is being encouraged. New banks concentrate on attracting the best customers. Existing banks must improve many aspects of their operations to keep their best customers and attract new ones.

Because of these changes and several other factors, banks are shifting their strategies, or developing detailed business strategies for the first time, to find ways to cope with their many competing demands. New strategies, operational enhancements, and higher demands require new or significantly improved skills and work cultures, and, in many cases, a major redeployment of staff.

Meeting these new demands for human resources takes time. Most developing countries do not have a broad or deep enough labor pool to enable a major banking institution to meet emerging skill shortages simply with a recruiting campaign. Skill shortages must be met internally, by the bank itself. New credit officers with better corporate credit and marketing skills, new auditors with computer skills and the skills necessary to help line managers operate their units more effectively, new computer technicians and managers, additional dealers and traders in the treasury function, strategic planners, and business managers—all of these, and many others, must be developed internally. Since it takes many years to build such staff, it is imperative that the bank project its future staffing requirements, so that it can plan or take actions today to meet those future needs. If the need arises by surprise in any year, the bank will not be able to respond quickly enough to cope effectively with whatever triggered the need.

Also, in recent years the task of internal development has become more difficult. In many countries, both industrial and developing, the public education system does not appear to have kept pace with the basic skill requirements of business. But some developing countries are facing a particularly wide gap between the output of the school system and the input requirements of business, certainly in banking, which is moving toward worldwide standards of performance.

One advantage that banks in developing countries have in facing these challenges is their "cradle to grave" employment practices. Most developing country banks recruit only for entry-level jobs and expect those persons to remain with the bank for their entire careers. And most employees have the same expectations. In this environment, banks can plan human resource development confidently for the future and should be strongly motivated to invest in the skill development of their staff. Similarly, individual employees should be motivated to learn and develop as fully as possible. Of course, neither of these conditions is universal. This topic is discussed in another section.

How, then, does a bank identify and meet its changing demand for human resources? It can follow six steps:
• Rationalize current staffing levels.
• Select a planning horizon.
• Project the supply of personnel.
• Forecast the demand for personnel.
• Identify emerging excesses and shortages.
• Make specific plans to resolve shortages and excesses.

RATIONALIZE CURRENT STAFFING LEVELS. A bank can facilitate projecting personnel needs by rationalizing (at least on paper) current staffing levels. This process permits the bank to consider how the business will change over the next several years and how those changes will translate into staffing changes. Thus, if current staffing levels have not been rationalized, the first step is to do so.

SELECT A PLANNING HORIZON. The next step is to decide the number of years for which planning will be conducted. Less than three years is usually not sufficient. More than seven years is rarely necessary, unless there is a specific need peculiar to the institution. If the bank has a five-year strategic plan, then a five-year manpower plan may be feasible. If there is no five-year strategic plan, then a five-year staffing plan may be too speculative about the institution and its evolution to be valid. Three to five years for personnel planning is typically the most useful and practical, although, in the early years of planning, some managers will have trouble identifying potential changes beyond two or three years. With experience, their planning skills will improve. (For purposes of the following discussion, we will assume a five-year planning horizon.)

PROJECT THE SUPPLY OF PERSONNEL. This step entails projecting how the current work force will evolve during the planning period without new actions—that is, how the work force in the bank and its units will decline due to voluntary or involuntary terminations, retirement, disability, death, or any other factors that cause a permanent separation of employment. (In some countries, this process is called “wastage analysis.”) Many banks track these data historically. They can use historical data to project attrition over the next five years, with some modifications to take into account anticipated changes in historic trends, bankwide or in specific units. Of course, retirements can be projected more precisely based on an analysis of age data and typical retirement patterns.

Banks that do not collect such data regularly must do so. It is vital that personnel planning be based on a reasonably good sense about whether a bank will lose, say, 5 percent, 18 percent, or 31 percent of its current staff over the next five years and how that loss might vary among its units. For example, attrition in the head-office computer division may be considerably higher than in a rural branch. Compared with banks in industrial countries, those in developing countries tend to have low attrition, but bankers in developing countries are still often surprised at the high attrition in their banks.

Since personnel planning is most useful when begun at the unit level and extended up to the bankwide level, banks should project personnel supply first by each unit—each branch, each regional office, and each head-office division. Unit managers have the best knowledge of their personnel trends and the extent to which they might have diverged from the bank’s overall trends. Moreover, they are in the best position to judge how future trends may diverge from those in the past.

A useful way to record the output of this stage of the personnel planning process is to develop a job and year grid that lists the unit’s jobs vertically and the years of the planning period horizontally. In each cell of the grid, the manager can record the anticipated number of staff in each job in each year of the planning period.

In this stage of the personnel planning process, actions that would normally be taken to offset attrition—for example, training, promotions, transfers, and recruiting—are excluded, because part of the planning process is working toward defining what should be the rate of the actions that will build or reshape the work force to meet future requirements.

FORECAST THE DEMAND FOR PERSONNEL. This stage of the process is the most critical and the most difficult. The fundamental task is to forecast staffing demand as it evolves during the planning period—that is, the number of persons needed in each job, in each unit, and in each year of the planning period. These forecasts also are made first at the unit level, and then up to the bankwide level. Unit managers have several resources for forecasting staffing demand—the bank’s strategic plan, the bank’s operating plan, the operating plans for credit and other businesses and for the branch network, the operating plan for the unit itself, automation plans, productivity improvement plans, marketing plans, plans for new products and services, and historical trends and the unit’s own understanding of its customers and their evolving requirements.

Relying on these and related resources, the unit manager first projects how the demand for the
unit's products and services and other work indicators will grow or decline over the planning period. For example, branch managers could project increases or decreases in the number and types of products and services delivered by the branch, the number of customers for different products and services, the volume of deposit transactions, the number of various loans, the volume of check clearings, and the volume of transfers. Given historical trends, well-considered operating plans, and an understanding of their market, managers can make a reasonable forecast of the demand for personnel for most major elements of their unit's work output.

Next, the manager estimates how personnel demand will be affected by the changes in business demand. Managers can use the tools for optimizing staffing levels discussed earlier in order to forecast future staffing requirements. They can use workload analysis to forecast staffing requirements based on projections of the unit's workload. Similarly, they can use relationship analysis to forecast staffing requirements based on the relationship between other demand indicators and the number of staff. In using both of these tools, managers must determine how the number of staff will relate to workload and other demand indicators during the planning period. Many factors could change current or historical relationships, requiring either fewer or more staff for a given unit of work. Such factors include changes in work procedures, improved skills, advances in technology or automation, other actions to improve productivity, a better work culture, changes in the organization, and changes in service standards.

Managers can also use modeling to forecast future staffing requirements, either by refining and projecting the models developed earlier to optimize current staffing levels or by building additional models in other areas.

The output of this demand-projection stage of the planning process should be the same type of unit-specific job and year grid that is used to display the personnel supply projections. The next step in the process then entails comparing the supply and demand projections directly. Having them in the same format facilitates that comparison.

Identify Emerging Excesses and Shortages. This stage of personnel planning is largely mechanical. It basically requires comparing the supply projection with the demand forecast year by year to identify the emerging shortages and excesses in each job in each unit. Here is where a manager might see, for example, how the current supply of computer programmers will decline over the next five years and how the demand will increase, creating a gap in staffing that may start as soon as the first year of the personnel plan and increase to major proportions in the following years. Another manager may identify a widening gap in corporate credit officers. Another may find an excess of accounting clerks as personnel demand in these positions drops faster than the supply of these positions.

Unit managers can use the job and year grid to display the emerging shortages and excesses in each job in each year. Indeed, since higher-level managers and the human resource division must review and rely on the results of each of the three steps, displaying the supply, demand, shortage, and excess grids side by side facilitates analysis and review.

Make Specific Plans to Resolve Shortages and Excesses. Since the purpose of personnel planning is to trigger the actions necessary to achieve the right number and balance of qualified staff as personnel demands change, the last step in the process is to plan the specific actions necessary to avoid the potential shortages and excesses revealed by the planning process. As a practical matter, most banks will have to deal with potential excesses in some areas and potential shortages in other areas. But the overall pattern will vary among banks. For example, the plan for a bank that is entering a high-growth period with a lean staffing mix will be dominated by actions to meet potential shortages, while the plan for a bank that is entering a stable period with excess staff will be dominated by actions to reduce the excess.

No single action will resolve either the shortages or the excesses; a range of actions will be necessary during the planning period. But each bank will consider and select a hierarchy of actions. For example, before terminating excess staff and hiring persons from outside to fill potential shortages, most banks will try to use excess but capable staff to meet those shortages. They can do so in several ways:

- Internal transfers—Banks can transfer excess staff from one area to meet shortages in another, if those persons can be trained fully in the new job. The cost and social feasibility of geographic relocation will limit this option to some extent. Moreover, if the excess staff are primarily unskilled or have weaker skills, whereas the shortage of staff exists in jobs that require higher-order skills, internal transfers may solve only a few problems. However, banks should explore this option fully. A
careful assessment of persons in lower-level jobs may reveal talent that might not be apparent today.

- **Promotions**—Some excess staff at lower levels in a unit can be promoted to the next higher level in the same or a related unit to fill a shortage; they may be qualified now, or may require training.
- **Training and development**—Since most shortages and excesses will emerge in years two, three, four, and five of the planning period, there is time to focus training and development over the long term on excess staff who are capable of filling jobs for which a shortage is projected. Indeed, this kind of advance warning is one of the most important advantages of good personnel planning.
- **Demotions**—Some excess staff in higher-level jobs can be moved to lower-level jobs to fill shortages. Demotions are never welcome, but they may be preferable to terminations. And a promotion back up to the previous level may be possible in the future.
- **Recruitment**—At some point, a bank will find it necessary or desirable to rely on external recruitment to fill emerging shortages. Staff are commonly recruited in areas such as computer technology and certain treasury and credit areas, where the acquisition of skills takes a long time and where the resources for supporting their development do not exist in the bank. Of course, external recruitment can fill other positions as well. Some banks will have to overcome a policy or a general reluctance against hiring at levels above the entry level in order to use external recruitment fully to fill important shortages. They may also need to make some special remuneration arrangements to attract such persons.

Emerging excesses can be met in some of the same ways—internal transfers, promotions, training and development, and demotions—when job openings exist. But if a bank is in a net excess position, other actions will also be necessary. The following are some options:

- **Transfers to other institutions**—Some banks are in a position to transfer some excess staff to sister organizations or to other institutions. In some countries, large state banks are a source of staff for smaller, state-owned or private banks.
- **Transfers to subcontractors**—Similarly, some excess staff may be transferred to companies that work as subcontractors to the bank.
- **Placement of excess staff in new businesses of the bank**—Faced with a large excess of staff, some banks have started new businesses or new services in which some of the excess staff can be placed. This option would obviously be unsound for the bank if it is simply another form of subsidizing excess staff. However, if a real business opportunity exists, and it can be built and operated on a profitable basis, placement can be one alternative for retaining excess staff.
- **Termination**—When a bank has excess staff who cannot be used elsewhere in the bank or transferred to other institutions, it must terminate those staff members. Since future growth plans have already been factored into the personnel plan, the bank cannot hope that future growth will somehow resolve the problem. Moreover, many excess staff will be persons who are simply unqualified for modern banking. In such situations, most banks strongly believe that a generous severance package (a “golden handshake”) is warranted. Persons close to normal retirement can be given an early pension. Other persons can be given a cash severance benefit of two to four weeks of salary for each year of service with the bank. Perhaps some can be retrained for another occupation. And some can be trained to start and operate a small business with their severance payment.

After emerging personnel shortages and excesses have been identified and plans made for resolving them, the bank is ready to take action to implement the plans. These plans should be a solid foundation for much of the bank’s recruitment, transfers, promotions, training and development, and outplacement. But while these plans are being implemented, the bank must stay alert to several other possibilities: (a) because business plans and events and the reaction of the work force obviously will not follow the personnel planning assumptions, a bank must review and revise the personnel plan annually to take into account changing realities; (b) some shortages or excesses may be minimized by modifying personnel practices, such as making efforts to retain needed staff, reducing overtime work, reducing planned recruiting, implementing worksharing, moving persons to part-time status, or reducing work hours (and pay); and (c) there may be ways to accelerate the growth of the bank in certain markets beyond what was originally planned.

**Conclusion**

It is true that any bank needs a full complement of qualified staff to meet its goals and fulfill its mission. Anything less will damage its ability to operate effectively. Excess staff can be damaging in other ways. Thus, optimizing the current staffing
level and skill mix and maintaining an optimum staffing level and skill mix as the business changes are important goals for senior management and for each line manager. The human resource division can play an important support role in personnel planning, but it cannot do it alone. Each line manager must be involved—to determine the correct current and future staffing level and skill mix in his or her unit, to plan the actions necessary to implement the personnel plan, and to work with the human resource division to execute those actions. The tools for effective personnel planning exist. Line managers may require some training to use the tools effectively. But there is no reason that a bank that wants to optimize its staffing levels and skill mix cannot do so over time. Even so-called “political” obstacles can frequently be reduced or overcome when the argument is well made. (Alpander [1982] provides further information on personnel planning techniques and data inventory systems.)

**Objective 3: Build the Right Skills and Work Culture**

A bank cannot function unless its staff have a wide range of skills and the appropriate attitudes to channel their skills and energies into productive results for the bank. What is hard to recognize is whether existing skills and attitudes are adequate to meet current needs. If the bank cannot fully recognize the adequacy of existing skills and work culture, then its efforts to build the right skills and work culture can be misdirected, or, most typically, are unproductive, sometimes to an extreme degree. Indeed, building the right skills and work culture is one of the most underresourced yet most glaring needs in banks in developing countries.

When we discuss “skills,” a general consensus exists about its definition—even though different people will define credit skills or audit skills or management skills in somewhat different ways. However, when we discuss “work culture,” “institutional culture,” or “corporate culture” (all of which are the same), definitions are less universal. Work culture can be described in several informal ways: “how people do their job”; “how people react to their company, their boss, their colleagues, and their work”; and “what it is like to work in this company.” In more formal terms, work culture is a pattern of assumptions, values, and norms that members of an organization share and that strongly affect their behavior in the workplace (box 5.2). **Assumptions** are what employees believe are true within the organization—for example, promotion is based on job performance, or on seniority and working relationships. **Values** are what employees believe are important within the organization—for example, that it is important to seek opportunities, identify problems, and make improvements, or maintain the status quo and stay out of trouble. **Norms** are how employees are expected to act in specific situations—for example, people should speak up, offer ideas, critique the ideas of others, or should wait to be told what to do.

The particular constellation of assumptions, values, and norms of an organization will strongly shape the behavior of members of the organization—the daily actions of people relative to their work. We know that promotions are very important to most workers. If they believe that promotions are based on their performance in their job, many will try to understand performance standards and achieve them. But if they believe that promotion is based on seniority and working relationships, they will try to stay out of trouble and gain the favor of influential persons. Similarly, if workers or managers believe that it is important to seek opportunities for new business or operational improvements, to identify problems and resolve them, or to improve customer service, working conditions, or operations, they are apt to do so. But if they believe that it is important to maintain the status quo and keep a low profile, they will do so.

The effect of each set of cultural characteristics on the outcomes of the organization is obvious. Work culture strongly affects work behavior—negatively or positively. Does a manager simply “administer” his or her unit, focusing on the activities rather than the outcomes of the unit, maintaining the status quo, and avoiding mistakes, de-
cisions, problems? Is the manager just a “post office” (as some bankers describe them), passing work downward and decisions upward? Or does a manager “lead,” identifying and achieving priority results, confronting and resolving problems, making improvements, developing staff, and building resources for the future? All these issues pertain to the work culture. Many banks in developing countries have a largely counterproductive work culture—rooted in a bureaucratic, monopolistic, noncommercial era—that is now a fundamental obstacle to meeting the commercial and developmental demands of today’s banking environment.

To build the right skills and work culture, banks must pursue five basic tasks:

1. Identify the full range of required skills and attitudes.
2. Identify the individual (and collective) capabilities, resources, and developmental needs of staff.
3. Accelerate, intensify, and focus training and development to fill existing shortages and to meet changing skill requirements continually—in particular, build management skills and core functional skills.
4. Develop a work culture throughout the organization that supports the bank’s mission and strategy.
5. Hire persons who are clearly capable of learning and meeting the current and evolving standards of the bank.

Skill and Attitude Needs Analysis

In organizations where performance is generally satisfactory, where change is incremental, and where current skill levels are reasonably high, a needs analysis may entail assembling a list of targeted training solutions to specific performance problems or introducing new technologies. Many banks in developing countries are not in this position. In many instances, banks must significantly improve their performance, upgrade several operating processes, and dramatically raise existing skill levels, as well as introduce wholly new skills. Thus, a more fundamental needs analysis is typically required. The task here is basically to identify the full range of skills and attitudes required by the bank. (Later sections discuss assessing skill shortages in the organization and prioritizing them for attention.)

Since it is the individual employee who uses skills and must acquire them in an organization, it is most useful to focus the needs analysis on people in individual jobs. Some clerical, technical, and managerial skills may be generic across a range of positions. Once the bank identifies the needs of each position, it can cluster common skill requirements for training and development purposes. For example, Citibank uses an “Inventory of Skills for a Commercial Loan Officer” that encompasses what might be called knowledge, skills, and work experience (box 5.3).

While a particular bank may consider these to be the “skill” needs of a commercial loan officer, credit managers, senior managers, and persons in jobs at levels below the commercial credit officer job may require these same skills in this same bank. Indeed, this framework illustrates a useful approach to needs analysis—focus first on the core

**Box 5.3 Citibank’s Inventory of Skills for a Commercial Loan Officer**

**Academic**
- Intermediate accounting
- Corporate finance
- Business law
- Money and banking
- Economics
- Written and oral skills

**Technical**
- Credit investigations and inquiries
- Credit analysis
- Uniform commercial code
- Laws and regulations
- Interpersonal skills
  - Interviewing
  - Negotiating
  - Selling
  - Conveying unpleasant information

**Knowledge of bank and market**
- Bank’s goals
- Loan policy
- Services and functions of other departments

**Experience**
- Seasonal loans
- Term loans
- Agent bank loans
- Workouts
- Liquidations
- Small business administration guarantees
- Small business loans
- Contractor loans
- Asset-based secured lending on a revolving basis
job in a common hierarchy of jobs, such as commercial credit officer, auditor, accountant, or branch operations manager, and then modify this needs assessment to fit higher-level and lower-level jobs in the same hierarchy.

Information for a needs analysis comes from a variety of sources. A good job description should provide basic information on the education, experience, and skills required for a given job. But these are typically minimum requirements for the position, and “experience” tends to imply certain skills that, for purposes of the skill and attitude needs analysis, must be extracted and identified in terms of “skills.” The job description should also identify the responsibilities and duties of the job, from which the bank can develop a full list of skill requirements.

Incumbents in the job will have their own practical opinion about the skills required for the job. The managers of incumbents in the job will also have a practical set of opinions about the skills required for the job. Performance appraisals, if they critique skills, can be a useful source. The unit’s operating plan may specify new performance requirements, goals, or strategies and action plans that state or imply new skill requirements. New or upgraded processes, procedures, technologies, or equipment may require new skills. Persons within the bank who provide input to the job or rely on the output of the job may have a useful opinion about the types of skills required for the job. Similarly, customers of the bank will have a useful opinion about the skills required for the branch or head-office jobs that deal directly with customers. Internal and external auditors should also have opinions about the skill requirements for certain jobs. Each bank will find other useful sources as it conducts its needs assessment.

Who should conduct the needs analysis? Since banks must focus on individual jobs, and since numerous sources of information exist, it is clear that human resource staff cannot physically conduct all aspects of a bankwide needs analysis. Line managers must play a major role.

* Human resource staff—The human resource staff responsible for a skill and attitude needs analysis should organize the task, train line managers to implement the appropriate analytical techniques, provide examples of the output of the process, assist line managers in conducting their analyses, and review and finalize the results with each line manager.

* Line managers—Selected line managers should build the lists of skill and attitude needs for the jobs in their units, following the techniques and model outputs provided by the human resource staff. Only “selected” line managers need be involved. Since many jobs across branches are basically similar, perhaps the branch managers and the departmental heads of only three or four branches need be involved in the basic analysis. The bank may want to establish a working group of ten or so branch managers to prepare and finalize the needs analysis. This same working group could be reassembled later to review and finalize the list of skill and attitude shortages and priority training needs. Selected managers from other bankwide units, such as auditing, accounting, credit, human resources, administration, and operations, could form similar working groups. More specialized units would conduct their own analyses.

The key to a successful skill and attitude needs analysis is to have a practical working model. How detailed must the list of required skills be? What should that list look like? One example—for a commercial credit officer—was provided earlier in this section. For most banks, this example is detailed enough. Less detail might be sufficient, certainly so for less complex jobs. Analysts must recognize the objective of the needs analysis—to serve as a basis for assessing the skill shortages of incumbents in the jobs, and for identifying priority training needs. “Keep it simple” is an appropriate maxim for a skill and attitude needs analysis.

**Individual Assessment**

Virtually every institution has an individual assessment system. Some are satisfied with their system; some are not. Some systems work well; others do not. Many assessment systems (or performance appraisals, performance assessments, performance evaluations, or performance and potential appraisals, as they may be called) are largely irrelevant. Managers conduct the process, produce some paperwork, typically do not communicate anything to the person being appraised, and send the assessments to the human resource department. The department then enters the result in a data bank, which may then be the source of salary, promotion, or transfer decisions, but not an assessment of job performance per se.

Individual assessment is extremely important for a bank. An organization needs a mechanism for identifying each individual’s training and developmental needs in order to plan and provide the right type and depth of training and conduct
the right type of on-the-job development. Individual assessments also help identify the best people for promotions, and appropriate job placements provide the necessary communication to enable individuals to improve areas of job performance, and provide an objective basis for salary increases or bonuses if they are linked to individual performance. These other uses will be discussed later. This section concentrates on individual assessment for purposes of building the right skills and work culture.

The basic assessment task is to identify the individual and collective capabilities, resources, and developmental needs of staff. It is in everyone's interest to do this and do this well. Senior management should want fully qualified people in each job in the bank. Qualified staff are fundamental to achieving the goals of the bank. Each individual line and staff manager should want fully qualified people in their unit. It makes their job easier and provides the basic resource for achieving their unit's goals. And each employee in the bank should want to improve and expand their skills, which should eventually lead to better pay, better status, promotions, and more interesting work.

But many obstacles to conducting useful individual assessments seem to exist. In some cases, assessment is not a high priority, even though skill shortages may be one of the most fundamental problems of the bank. The bank provides limited and scattered training, unrelated to any objective assessment of the need. The assessment tools and resources, including assessment training for line managers, are frequently inadequate. Or assessments are not followed-up, and thus managers are not motivated to devote the time to thoughtful assessments. In some cases, managers do not know enough about their subordinates and their skills to make a useful assessment. In other cases, they lack the courage to do so. Some managers are simply not objective in this area; they have other motives in mind. Sometimes, the existing process calls for assessing a universal list of personality traits, but not job-related skills. Sometimes, the existing process consists of too many objectives and defeats the core purpose of the process—for example, when a manager is reluctant to identify skill weaknesses because it may mean that the employee will receive a smaller salary increase.

Banks must simplify and segment the traditional individual assessment process, and focus on the one fundamental purpose—to identify the skill development needs of each individual. In doing so, banks have a targeted and objective basis for improving individual skills, quantifying the amount of training actually required in the bank, building the training and development infrastructure, and targeting all training and development activities at the highest-priority skill needs.

How might a skills-oriented individual assessment process work?

- **Establish the purpose.** The purpose would be to identify each individual's skill development needs, either for his or her present job if that is the priority, or for the next higher job, if he or she is close to promotion, so that action can be taken to meet those needs.

- **Decide who will conduct the assessment.** Two players are key—the manager, who should have a clear set of skill standards in mind and a good sense of the staff member's performance and skill needs, and the staff member, who also has a sense of his or her own skill needs.

- **Establish the benchmarks for the assessment.** The knowledge, skill, and attitude requirements that are identified for the job should be the basic benchmarks for the assessment. A good job description is another important benchmark.

- **Define the output of the assessment.** The principal output would be a list of the employee's developmental needs. To be practical, the assessment should identify the employee's overall developmental needs for his or her present job, giving the person a perspective on his or her interim learning needs, and the specific developmental needs to be met in the next year. The other important output would be a plan that defines how and when each developmental need will be met. Since most development occurs on the job, the plan should include a range of on-the-job actions, as well as self-development goals and periodic formal training. The statement of developmental needs and the plan for development can fit on one piece of paper.

- **Define the process of the assessment.** Since the manager and the employee work together during the year as superior and subordinate, and since the superior will initiate some of the developmental actions (for example, on-the-job coaching, critiques, and work assignments), it is important that both agree on the developmental needs and the plan for development. Thus, both should be involved in the assessment. The superior would make his or her assessment, and the subordinate would make a self-assessment. They would meet, discuss, and agree on the assessment, and then prepare the plan for development.

- **Submit the assessment and plan to the manager's superior and to the human resource department.** The
manager's superior should review the plan and ensure that it has been prepared thoughtfully. The human resource department will review the plan from several perspectives. First, it must ensure the overall quality of the plan, particularly in the early years of the program. Second, it must determine the actions that should be targeted at the individual (for example, training or work reassignment). And, third, it must aggregate all plans for development to assess the overall training and developmental needs of the bank and how those needs can be met. These plans will be a very important resource for the bank as it plans and builds its training and development infrastructure.

Once the human resource department has decided how it wants to handle this process of individual assessment and developmental planning, it must document the process, provide some examples from its own experience, and train line managers to apply the process. Since the program is relatively simple and deals with job-related skills from which all players will benefit, its implementation, training, and development should be straightforward.

Training and Development

At this point, the bank has used the skill and attitude needs analysis to identify these requirements for each job in the bank, and managers have conducted individual assessments of their staff and identified their developmental needs. With the resources of this analysis and the plans for individual development, the bank can start to rebuild its training and development infrastructure. This need may be critical in some banks. As stated earlier, many banks in developing countries have a severely underresourced training and development infrastructure, yet skill shortages are one of their most serious obstacles to improving bankwide performance significantly.

Three main elements comprise the training and development infrastructure: the training process, on-the-job development, and career path management. Each element must be shaped to meet the skill requirements of the bank.

The Training Process. Fundamental to the training process are the training policies and attitudes of the bank. Policies must be established to stress the importance and the relative priority of training in the bank. Perhaps more important, the status of training and trainers must be positioned correctly in the bank. Too often, training is a low-priority function, a "parking lot" for managers who perform poorly. This attitude undercuts the effectiveness of training—trainees do not take the training seriously, managers are unwilling to release staff for training, and good trainers cannot be attracted to the function. Training must be a core activity of the bank that builds the skills necessary to enable the bank to meet its goals. Training needs analysis should be institutionalized so that management and trainers are always abreast of the status of skills development in the bank.

Designing the right training curriculum is one of the most critical steps in the training process. The scope, depth, and frequency of the training will determine how quickly the bank can meet its training needs. It will also determine the size and budget of the entire training function. The needs analysis and the plans for individual development will reveal a wide array of training needs—not all of which can be met in a single year, or even two or three years. Priorities must be established and training needs balanced against training costs. In many banks, training curricula must be expanded and the amount of training accelerated. The resources for designing the training curriculum are the skill and attitude needs analysis and the individual development plans prepared earlier.

Training curricula in banks in developing countries should include components to help overcome several high-priority skill and attitude shortages (see box 5.4).

Designing internal training courses is a skill that must be built within the bank. Course designers must have bank staff who have the skills that are to be taught. External courses are also an important part of building a well-rounded curriculum. Not all skill needs can be met effectively with internal resources alone. Training planners must identify how external courses fit into the curriculum, identify available courses, assess them carefully, and organize their delivery. The selection, management, and training of trainers underlies the quality of training. Banks will have some full-time trainers for core programs, and some externally contracted trainers, but most training will be conducted by skilled line managers and technical staff. They must be competent and be able to impart job-specific skills. Their training skills must be monitored and evaluated so that they can improve their performance or be replaced with more competent trainers. Trainees should be selected and prepared according to the priority of needs and their trainability.

Training methods and materials should incorporate modern training technologies to maximize effectiveness. Training facilities should be adequate
to encourage learning and enhance trainees’ motivation and enjoyment. The evaluation of training and trainees should be of sufficient scope and depth to measure the effectiveness of training and the transfer of skills to the job. The training organization must have an adequate complement of planning, development, delivery, and support functions, with enough skilled staff to do the job. And, to repeat a point made earlier, the training function must have high-quality staff to play its skill-building role effectively.

**ON-THE-JOB DEVELOPMENT.** Most learning in a bank occurs on the job. Formal training can impart a wide range of basic skills and desired attitudes, but it is on the job that those skills are internalized, deepened, honed, expanded, and supplemented. And, of course, many required skills will not appear on the bank’s formal training curriculum, and not all employees will be able to attend all the formal training necessary for their job. Building and disseminating a thorough knowledge of the techniques of on-the-job development is a very important resource for any bank. Even more important is building a culture in which employees seek to learn on the job, and managers are motivated to find ways to develop their staff on the job. It should be in everyone’s interest to do so, but, for various reasons, this type of culture does not exist in many banks in developing countries.

Three players are key in on-the-job development. The **manager**, who conducts the individual assessment and prepares the plans for development for each of his or her subordinates, is the key player. The manager organizes opportunities for development within the unit, allocates work assignments with a developmental focus, critiques the methods and results of employees, and indirectly coaches employees to improve their skills. Managers who are good developers do not devote much time to thinking about or planning these actions; they do them as second nature. Another key player is the unit’s **expert** in one or more of the unit’s work tasks. The expert can provide formal on-the-job development skills to novices, conduct informal development activities with experienced workers, or simply be available for discussions. The other key player is the **employee** who needs on-the-job development. Ultimately, any person’s development depends on his or her will and capacity to build necessary skills and behavior. Individual employees should be expected to take charge of their own development and take full advantage of the opportunities and resources provided by the bank. Doing so may range from extracting as much as possible from any formal training opportunities to inviting critique and asking questions on the job. If a personal development plan has been worked out with the manager, the employee has a program to follow. The employee should take initiative to ensure that the plan is implemented and that it responds to his or her needs.

**CAREER-PATH MANAGEMENT.** Since most development occurs on the job, and most employees in a bank will have five or six jobs at most during their career with the bank, the jobs in which an employee is placed are fundamental to the employee’s development. Career-path management balances the bank’s need to have qualified persons in each job and the bank’s need to use jobs to develop qualified persons. For example, a branch requires

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**Box 5.4 High-priority Skills and Attitudes for Bank Training Curriculum**

**Management Skills**
- Planning
- Goal setting
- Monitoring and control
- Productivity management
- Cost management
- Problem identification, analysis, and resolution
- Quality control
- Change management

**Functional Skills**
- Asset/liability management
- Credit analysis
- Credit monitoring
- Problem-loan management
- Auditing
- Computer technology
- Operations analysis
- Human resource development
- Management accounting

**Attitudes**
- Results orientation
- Improvement orientation
- Active, involved management
- Staff development
- Problems resolution
- High standards
- Receptiveness to change
- Profit orientation
- Customer focus
- Open communications
- Constructive critique
- Objectivity
- Initiative
- Assumption of responsibility
qualified persons in various officer-level positions, such as credit, customer service, operations, accounting, control, and administration. Yet it also requires skilled branch managers, and an employee may need to occupy some of these other officer-level jobs on the path to becoming a skilled branch manager.

"Managing" career paths can be an unnecessarily complex process if a bank plans too many positions too far in the future. Banks should start with management and key technical positions and work downward in the organization as the need and value of career-path management become clear through experience. Similarly, planning three years into the future may be enough at the beginning, to be extended only where the need becomes clear.

Career-path management has four components. First, when transfers are planned, the affected employees must know the logic and advantage of the transfer. Second, advance plans must be made about where generalists and specialists should be developed. Third, the major types of work experiences must be identified for key jobs, such as credit manager, operations manager, branch manager, regional manager, and middle- and higher-level managers in the headquarters office. The work and job assignments of potential candidates must also be planned to allow those persons to gain that experience. And fourth, the length of time that a person typically requires to learn a job must be identified. High-potential persons must be moved along to a new learning experience when they have learned what they should from the job.

Institutional Culture Development

Earlier in this section, we defined "work culture" and noted its importance in influencing the behavior of managers and staff and, thus, the performance of the institution. A counterproductive work culture not only inhibits current performance, but it also retards the actions of the bank toward improving its performance in the future. For example, banks can provide good tools and training to managers in operational planning, but if the culture does not value planning it will not occur, or, worse yet, it will become a pure "paperwork exercise" that wastes labor and has no impact on performance. (And managers will later conclude that "planning doesn't work.")

Banks whose work culture has a negative effect on their operations must take active steps to shift away from the past and build a positive environment, one that supports the current mission and strategy of the bank fully. But it is not easy to change the work culture. It has typically evolved over decades and is continually reinforced by many factors—reward systems, performance appraisal systems, training programs, work standards, managerial behavior, the daily examples of managers, and the influence of customers and government agencies. Moreover, if the bank hires only at entry levels and retains staff for their entire careers, new staff learn the culture at an impressionable early age, find it reinforced as they develop within the institution, and then pass the culture on to the next generation.

But just as the existing culture evolved and became what it is today, the culture can be changed. It is not immutable, as some managers seem to believe. Most developing countries have many examples of successful work cultures, ranging from small farmers and fishermen to large industrial groups. Unfortunately, many banks have evolved in a different direction—perhaps because of bureaucratic, monopolistic, regulatory, or noncommercial reasons.

The key to building a positive and supportive work culture is to understand how it evolved, how it exists today, and what sustains it. Interviews with and group discussions among perceptive and open managers and staff can usually reveal a clear picture of the existing culture. Opinions may vary about various causal and reinforcing factors, but a good inventory of such factors can usually be identified. Only when banks know where they are and how they got there can they start to build the new culture.

The critical first step in building the new culture is to define the target culture: What type of work culture does the bank want to have? There is no universally "correct" work culture. Each country is different, and banks within each country may differ. Each bank must define its own target culture. An analysis of the existing culture, revealing both negative and positive characteristics of the existing culture, provides a good starting point. Some typical examples are presented in box 5.5.

Each bank will have its own characteristics and its own view of the target culture that would be most effective to support its mission and strategy in its own environment. Once the target culture is defined, the challenge is building it. Seven levers are key to changing the work culture successfully.

- Create the will to change. People must want to change their thinking and their behavior to ensure meaningful change.
Building Human Capital for Banking

Box 5.5 Comparing Existing and Desired Work Cultures

* If certain activities are counterproductive... The banker is king.
  Maintain the status quo.
  Do not set goals or work standards.
  Provide little follow-up.
  Accept excuses or promises to improve.
  Maintain closed communications.
  Ignore problems.
  Do not allow managers to develop staff.
  Base promotions on seniority.
  Increase pay the same for all.
  Make penalties stronger than rewards.
  Isolate managers.
  Measure only bankwide profitability.

... then the target culture should strive for different results.

* "The customer is king." Make improvements.
  Set and manage goals and work standards.
  Monitor, follow-up on plans.
  Stress personal responsibility for results.
  Maintain open communications.
  Anticipate and confront problems.
  Commit managers to staff development.
  Base promotions on potential.
  Base pay on performance.
  Make rewards stronger than penalties.
  Commit managers to active involvement.
  Manage profitability in each line unit.

- Communicate what changes are required and why. People need to know what they are supposed to change from, what they are supposed to change to, and why.
  - Convert, neutralize, or remove obstacles. Many practices, rules, systems, procedures, and people have created the existing culture—and continue to sustain it. They must be identified and persuaded to support the target culture, or neutralized or removed.
  - Provide special support for building the new culture. New ways, new tools, and new methods must be found to break through old patterns of behavior and sustain the targeted changes.
  - Spur action. The work culture can be changed only with leadership and active steps. Concrete daily actions must be taken to change the work culture at the right pace and in the right direction.
  - Keep the program dynamic. Changing the work culture is a long-term effort, subject to backsliding before its objectives can be achieved. It is important that change actions and results be monitored and corrective action taken when necessary.

- Continually affirm management's dedication to change. People will not change unless they know that senior management and their direct superior are serious about the change. Management must visibly demonstrate that seriousness—and provide consistent examples of the desired behavior.

Banks use many tools to implement a program to change the work culture: communication and information dissemination throughout the program; discussion groups; visible, concrete actions to demonstrate the new culture; direct or indirect training; changes in such systems as rewards, performance appraisal, promotions, transfers, career development, job design, and communications; the development of such support systems as goal setting and action planning, quality circles, monthly "campaigns" to support the new culture, and special-recognition events; and monitoring, feedback, and reinforcement. And it may be best to start with managers. When managers demonstrate the new work culture, their staff will follow, and change will occur.

Work cultures should be changed to support a bank's mission and strategy. Successful change requires commitment and involvement—strong leadership from the board of directors, the active involvement of all managers, the bank's willingness to be open about what is being done and why, and the functional application of a long-range program make the new culture become part of daily activity.

Capability-based Recruitment and Selection

External recruitment provides a unique opportunity to upgrade the quality of the work force. Internal training and development will improve the skills and attitudes of the existing work force, but their basic capacity, their natural ability, does not change. When a bank must upgrade the quality of the work force, external recruitment is an important tool. All banks now recruit young persons into entry-level jobs. Some recruit at higher levels, to fill either specialist or generalist positions. Many banks have formal or informal policies not to recruit above entry-level jobs. Since external recruitment is such a unique opportunity, it may be useful for a bank to review its recruiting policies, procedures, and resources to determine whether significant improvements can be made. Three stages of the process can be analyzed: identifying
sources, selecting methods, and generating applications.

- **Identifying sources**—Banks in developing countries tend to receive a vast number of unsolicited applications, in the headquarters office and in the branches. Some banks use them as their only source of external recruits. To generate an adequate number of high-quality applicants, a bank must frequently broaden its sources to include a wide range of schools and organizations. They should target the best high schools and universities, as well as foreign universities that attract a large number of the country’s graduate students. Banks should also target strong competitors and other institutions that attract the types of people needed by the bank. If a “gentleman’s agreement” exists not to approach those institutions, such agreements should be reconsidered.

- **Selecting methods**—Recruiters should visit targeted schools to identify and attract high-quality candidates. Recruiting campaigns could be launched at the more important schools. Cooperative education programs, in which students attend school part time and work at the bank part time, could be organized with the highest-quality schools. Summer or part-time internships could be offered to promising students. An “open house” could be organized in the bank’s headquarters or regional office to acquaint a targeted group of students with the job opportunities in the bank. More indirect approaches might be required to identify quality applicants in industry or government—for example, employee referrals, advertising, employment agencies, or contacts through professional associations.

- **Generating applications**—Implementing the selected methods requires some skilled staff for planning, support, and execution, and perhaps the involvement of selected managers who can convincingly communicate the advantages of a career in the bank and attract quality applicants. Bank presidents frequently enjoy “selling” the advantages of their bank to students. Of course, if the bank does not have the reputation as a good place to work, improvements must be made. If pay, promotion, training, job design, and other human resource policies and practices are not attractive, they should be changed, or special conditions established for jobs for which external recruits are particularly required.

Beyond these three methods, recruiting policies should also be reviewed, particularly policies that restrict the scope of candidates who can be considered or that limit recruitment to entry-level jobs. An adequate pool of candidates must be established to raise the quality of the work force. Recruitment into higher-level management or technical positions can be very beneficial to bring in unique skills, as well as different points of view, different experiences, or a different work culture—the “new blood” that many refer to.

There is not room in this chapter to discuss the many aspects of recruitment and selection—resume analysis, screening interviews, background and biographical data reviews, testing, employment interviews, reference checks, and so on. But one point must be stressed. The goal of external recruitment should be to upgrade the average quality of the work force, in addition to filling openings. To do so, staff and line managers involved in the recruitment and selection process must have clear quality standards in mind as they develop the applicant pool and conduct the selection process. The human resource department could develop profiles of the types of persons who offer the most potential for success in the bank. Such profiles could include personal factors, school or job performance, personality traits, and other elements. The challenge is to identify predictors of success, and then use those predictors in the recruitment and selection process to maximize future success. Of course, banks must be cognizant of the legal and ethical implications that may apply to using such predictors in their country.

**Conclusion**

Building the right skills and work culture is fundamental to the success of any bank. But banks in many developing countries devote few resources to this critical need and do not rely on the existing body of knowledge about work force development. A skill and attitude needs analysis can identify and quantify the skills and attitudes required by the bank. Individual assessments can identify skill shortages and trigger the planning to resolve those shortfalls. Rebuilding the training and development infrastructure can provide the tools and resources to meet the bank’s skill needs. Developing an institutional culture can turn a counterproductive work culture rooted in the past into one that supports the bank’s current mission and strategy. And capability-based recruitment and selection can upgrade the quality of the work force through external sources. Senior management should assess the situation in their bank, decide priorities
for developing skills and work culture, and then lead the effort to bring skills and work culture in line with the performance goals of the bank.

Objective 4: Manage Performance to Achieve Business Goals

As organizations become large and complex, and face external pressures, competing internal demands, and scarce resources, it becomes increasingly difficult to achieve targeted performance results. Meeting these goals requires leadership and management—insightful leadership and skilled, focused, and active management.

Managing performance effectively to achieve business goals requires continual execution of seven key ongoing tasks:

- Developing and maintaining high-quality leadership.
- Preparing practical strategies and business plans.
- Developing relevant goals and innovative and pragmatic action plans.
- Intensifying performance monitoring, measurement, and follow-up.
- Basing rewards, penalties, promotions, and transfers on performance.
- Stimulating the most capable, helping those who have unrealized potential, and terminating the incapable.
- Conducting active and focused management—by managers and of managers.

Leadership Development

As large, complex organizations, banks in developing countries frequently experience change, requiring bold leadership—by senior-level, middle-level, and lower-level management. The chief executive officer of the bank clearly must be a leader, but so must the head of human resources, an audit manager, an accounting manager, a branch manager, and a customer service manager. Indeed, all management jobs require some element of leadership.

The right style of leadership will vary across the range of national cultures in which banks operate. In one culture, leaders may operate most effectively in an autocratic style; in another culture, they may use a participative style. But across all cultures, people must be found in the organization (or from outside) who can make the right things happen. They must have a vision of what they want to accomplish, a vision that fits the organization’s strategy and goals. They must set goals, establish priorities, and set standards of performance for their unit. They must accept personal responsibility for achieving those results. Since they are role models, they must set a consistent example of the standards and behavior they are communicating. And since they achieve results through others, they must build strong subordinates and colleagues and find ways to build their commitment to the leader's vision and goals.

Each bank’s definition of leadership should be part of the criteria for selecting and promoting managers. Performance and leadership potential appraisals should focus in part on identifying leadership qualities in managers or potential managers. When good leaders are identified, they should be valued as an important corporate resource and developed carefully. Management training programs should make people aware of the bank’s definition, to enable them either to try to develop those qualities or to let their basic leadership qualities emerge. The bank must also maintain an environment in which managers can exercise their leadership skills.

Building and maintaining the conditions under which leadership can be developed may require changing the organization’s basic work culture. If so, this change must be considered along with all other changes required in the work culture (discussed earlier). But the basic requirement remains. A large complex bank, particularly one that is trying to improve its performance, needs people who can make the right things happen. Leadership is the common way to describe that quality.

Business Planning and Human Resource Management

The link between planning and human resources management is basic and pervasive. All important areas of human resource management are affected by the bank’s operational plans. Where sound plans exist, they provide a solid foundation and direction for organizing, developing, and managing human resources. They also provide a framework for monitoring and measuring the success of human resource actions and identifying the need for corrective actions or new efforts. In essence, they provide a critical reference point for linking human resource plans and actions to the business.

For example, as discussed under objective 1, a bank organizes its units and its people fundamen-
Building Strong Management and Responding to Change

tally to implement the directions and goals defined in its strategic and operational plans. A bank optimizes its staffing levels and skill mix to provide the right level of human resources to meet the goals defined in the plans. In the same way, a bank defines its skill needs and work culture to meet plan requirements. And last, the bank manages the performance of individual workers, managers, and organizational units to achieve the short-term and long-term goals defined in its strategic and operational plans. Its rewards may also be designed to reflect how well strategic and operational goals are achieved.

Of course, even in the absence of sound business plans, these human resource activities are still conducted. But they inevitably lack the focus required in today’s demanding banking environment. Without sound business plans as a reference point, human resource actions tend to follow the patterns of the past, either continuing existing inadequacies or permitting only slow, incremental improvements. Dramatic improvements in human resource actions and results typically need the impetus created by demanding strategic and operational plans.

Senior managers from the human resource function should be involved in the bank’s strategic and operational planning, to provide expert functional input, to help shape the plans, and to gain a good understanding of the purpose and contents of the plans. When the plans are completed, they become a key resource for discussions between line managers and the human resource department about human resource requirements. The human resource plans and actions that flow from these discussions form much of the agenda for the human resource department for the year.

**Goal Setting and Action Planning**

One of the most direct links between strategic and operational planning and human resource management pertains to goal setting and action planning. The bank’s operational plans establish specific performance objectives and action plans for the bank as a whole and for major organizational units of the bank. These objectives and action plans provide a direct basis for focusing and managing the human resources of those units. They also provide concrete reference points for applying goal setting and action planning down to the lowest management levels in the bank.

Goal setting and action planning at management levels generate several important advantages.

They:
- Define each manager’s highest priority results.
- Quantify what specific results are expected and when.
- Set realistic plans and timetables for achieving agreed-on results.
- Stimulate innovation, creativity, and improvements.
- Encourage regular follow-up and corrective action.
- Generate better results.

Everyone benefits from goal setting. Managers benefit from having a clear set of expectations from their superiors, as well as a clear path for managing their units. Superiors benefit from having a simple and concrete tool for monitoring and assessing the performance of the several units under their control. Staff in the unit benefit from knowing the priorities of the unit and having a basis for focusing their work. And the bank benefits from the aggregate effect of goal-oriented management at every level of the bank.

Of course, banks that introduce disciplined goal setting and action planning for the first time face some challenges. Goal-oriented management can represent a significant change in the work culture of a bank. It requires that managers be leaders, and that they plan and manage actively. It requires openness and candor; excuses are much less tolerated. It pressures units to perform and, in so doing, forces innovation and change. Weak managers can feel threatened until they build the managerial skills they need to derive the full advantage of operating in a goal-oriented environment.

For all these reasons, goal setting and action planning can be an important tool for a program to change the work culture. They are concrete, visible, and action-oriented and are linked directly to the business. When goal setting and action planning become part of the regular management style of an institution (it may take two or three years), they are a significant aspect of cultural change. Many believe that goal setting is the cornerstone for building a results-oriented work culture. Goals, in effect, define what every unit's results should be.

To implement goal setting and action planning successfully, senior management must believe that goal-oriented management is important to managing the bank—and be prepared to use it as they interact with subordinate managers. The skill must also be introduced into the bank. Some managers seem to be instinctively good at goal setting, but
most must learn it. In addition, the information system for monitoring and measuring results at the bankwide level and at the subunit level may need to be revised to permit a timely and focused comparison of results with the specific goals that are set. Communications may need to be more open, both as goals are set and results are reviewed. And unit managers may need to have more control over the resources and decisions that affect their results.

There are many goal-setting strategies. In the bank's operational planning process, a strategy will have been developed to establish performance objectives and action plans for the bank and for major operating units. (See chapter 2 on "Planning.") This same strategy may be fully appropriate for goal setting and action planning at lower management levels. As an alternative, the following is an outline of a six-step process that banks in developing countries have used successfully:

1. **Establish the unit's overall objectives.** Define the unit's unique role in the bank and the reasons that the unit exists. List the broad results to be achieved by the unit.

2. **Conduct a situational analysis.** Identify the unit's strengths, weaknesses, opportunities, and threats (a "SWOT" analysis, as it is called in some countries) in relation to the unit's intended role in the bank.

3. **List the unit's key success factors.** Identify what the unit must do extremely well to meet its overall objectives, and any essential improvements that it must make.

4. **Establish the unit's performance measures.** Identify the objective criteria for measuring how well the key success factors and the overall objectives are being met.

5. **Set goals.** Set quantitative performance measures to enable the unit to achieve highest-priority results that year. These targets will represent the specific results toward which the unit head will manage during the year.

6. **Prepare action plans.** Prepare a detailed step-by-step strategy for accomplishing each goal, including major task groups, actions within each task group, timetables, and responsibilities for each step. Attaining a goal without a practical action plan to support it may be unrealistic.

The unit manager should include submanagers and other staff in the goal-setting and action-planning process. The manager may need the input. But, more important, the manager needs to build commitment to the plan among the persons who will implement it. Staff must understand the plan, the assumptions underlying the plan, and the reasons behind the priorities and the level of the goals, and be comfortable with the feasibility of the plan, particularly if innovative actions are needed to achieve the goals. As staff participate in the planning process, their understanding and commitment should evolve.

**Performance Monitoring and Measurement**

Goals and action plans are prepared at the beginning of the year as part of the annual planning and budgeting cycle. As the year starts, managers organize and allocate their resources for executing the action plans and achieving goals. As the year progresses, managers will conduct their full range of managerial tasks, but focus particularly on ensuring that the persons responsible for executing the tasks in the action plans are doing so according to the timetable and that interim performance milestones are being met. Subordinates may need clarification, support, ideas, or an opportunity to test their own ideas. They may need additional resources. Banks may need to revise action plans to reflect unanticipated realities or unrealistic assumptions. "Shortcuts" may be required to move the action plans along faster. Revising some of the goals may be necessary—not to make it easier for the unit and the manager, but to reflect changes in the bank's priorities during the year.

Periodically, throughout this goal-oriented management process, the progress of the unit's action plans and progress toward its goals should be monitored formally. Each month, the managers and their superiors could meet to review progress. This monthly monitoring meeting is an opportunity for managers to raise any issues, concerns, obstacles, or problems that should be discussed, and an opportunity for superiors to have a full update on the status of each unit under their control, as well as to help managers stay on track toward achieving the unit's goals. If progress is satisfactory, the meeting is an opportunity to give positive feedback to managers and staff. If progress is not satisfactory, the meeting is an opportunity to find more innovative approaches or plan corrective actions before it is too late to overcome the deficiency. No "extra" work is involved in this interaction. Many banks see this monthly meeting as the heart of an effective relationship between superiors and their managers.

At the end of the year, superiors should conduct an annual measurement and evaluation. The manager should report the unit's actual year-end results
against the goals established at the beginning of the year, together with an analysis of why the unit fell short of or exceeded any goals. Superiors then review this report with managers and evaluate the unit's performance as reflected by the goals achieved and the factors associated with underachievement or overachievement. A fundamental purpose of the year-end performance evaluation is to identify improvements in the unit's policies, procedures, skills, staffing, equipment, materials, and so on for the next year. Depending on the human resource practices of the bank, the year-end evaluation of the unit's performance can also provide objective input for assessing the manager's performance and potential. At least, the unit's performance evaluation can indicate skills or attitudes that the unit manager must improve or develop.

Without formal monitoring and measurement, goals and action plans established at the start of the year tend to be ignored as the year progresses. Formal monitoring and measurement can focus the unit's attention sharply on its real priorities, and help it meet its goals and improve its staff or operations.

Rewards Management

All banks have many forms of rewards. Some people believe that promotion is the most important form of reward, because it increases the person's status, power, remuneration, and perquisites. Some believe that remuneration (salaries, bonuses, and benefits) is the most important form of reward, and the only one that matters. A particular geographical or job assignment can be a form of reward, as well as awards, prizes, letters of commendation, public recognition, or simply a positive comment from a superior or a colleague. Training, particularly overseas training, is also a form of reward. In some countries, working in a state bank has high status and is its own reward.

Rewards are extremely important in a work setting. Most organizations have three basic objectives in implementing reward programs: (a) to attract the right quantity and caliber of employees, (b) to retain needed employees, and (c) to motivate all staff to meet work standards, motivate technical professionals to add value, and motivate managers to achieve critical results, make improvements, and build resources for the future. Some organizations go further by using the reward system to achieve other important purposes—building or reinforcing the target culture, reinforcing the organization and the roles of managers, or directly supporting business plans and unit goals. And, of course, all organizations must work within certain cost constraints in managing their reward systems. From the employees' perspective, they look to the organization's reward system to meet their basic subsistence, improve their family's living conditions, derive psychological satisfaction, and ascertain their employment status and performance.

Banks should conduct a fundamental review of their reward programs. The bank's rewards may no longer reflect the bank's needs. Many banks in developing countries pattern their reward programs after the programs that cover government employees. Yet these banks may have fundamentally different needs in attracting, retaining, and motivating employees. Other reward programs may have been conceived in a different era, whereas the bank's current mission and strategy require very different reward strategies. In some banks, historic job and pay hierarchies may no longer reflect the relative importance of the jobs in the bank today. And other banks operate paternalistic programs that reward getting married and having children more highly than achieving good performance. Many of these banks are at an extreme competitive disadvantage in attracting high-caliber entry-level employees and find it almost impossible to attract managers or experienced persons with critical technical skills. Rather than motivating employees, many banks' reward systems discourage employees.

The reward system is also fundamental to the work culture. An existing reward system tends to reflect the historical work culture and is a powerful force in sustaining it. If rewards are based on seniority, relationships, favoritism, or influence (or, indeed, the number of children), they create a particular work culture. If rewards are based on results, fairness, objectivity, standards, or progress, they create a quite different work culture. Indeed, an existing reward system may be a major obstacle to changing the work culture. Conversely, changing the reward system can be an important lever for change.

With regard to a remuneration system, a useful starting point is to establish its objectives—that is, what should be achieved with the bank's payroll expense—and to analyze the existing system in relation to those objectives. For example, given the objectives of a reward system, the analysis would raise the following issues:
Building Human Capital for Banking

- **Attract high caliber staff.** Into which jobs does the bank need to attract such staff? Does the remuneration program permit the bank to do so? How does the bank's remuneration system and overall work environment compare with those of its main competitors?

- **Retain needed employees.** Does the bank have a retention problem (many banks in developing countries do not)? Has the bank lost needed persons because remuneration is insufficient?

- **Motivate employees.** Does the remuneration program motivate all levels of employees to perform their work well?

- **Support the target culture.** What type of work culture does the remuneration system foster? Is that what the bank wants? How well is the remuneration system supporting the bank's target culture?

- **Reinforce the organization.** Does the remuneration system reflect the relative importance of the jobs in the bank? Does enough incentive exist for people to take on higher levels of responsibility (and risk)? Do sufficient incentives exist for individual growth and development?

- **Support achieving business plans and unit goals.** What is the link between the performance of individuals, units, or the bank overall and remuneration? Would a more direct link improve the focus and motivation of managers or managers and staff to achieve their goals?

- **Control cost.** Is the bank managing its remuneration costs in the most effective way? Do the employees fully value the many elements of remuneration provided? If the payroll expense is expressed as a percentage of assets, is the bank within reasonable norms in comparison with its peers?

  Depending on the results of this analysis, the bank would establish a basic strategy for changing its remuneration system—for example, controlling costs, allocating existing payroll expense more effectively, meeting competitive or other reasonable standards in remuneration levels, strengthening incentives, building a high-quality remuneration system, or using some combination of these. It would then revise its remuneration system to follow this strategy.

  The particular remuneration system devised by any bank will be influenced considerably by local and national factors. But as banks move to a more commercial orientation and operate in a more competitive and demanding environment, it becomes increasingly useful to find ways to link remuneration more directly to individual and unit performance. Remuneration is a powerful incentive in most countries. Linking remuneration to desired results can be a strong force for achieving those results. And doing so is much more feasible than previously. Business plans, goals, better management information, better performance appraisal systems, and more disciplined credit systems and management processes provide basic resources for linking remuneration and performance objectively.

  Other elements of the reward system also should be reviewed. Are promotions being made for the right reasons? What signals are being communicated to the work force through the bank's current promotion practices? Are attractive job assignments being made for the right reasons? Is the bank using non-remuneration rewards well (for example, awards, prizes, letters of commendation, and public recognition)? Do managers find reasons to praise workers or teams of workers for their achievements? Are rewards stronger than penalties overall?

  An overall reassessment of the bank’s reward system may facilitate eliminating old obstacles to success and devising new ways to encourage the behavior required for success in today's environment.

**Career Motivation**

While a new reward system may provide a certain level of motivation in an organization, a broader range of improvements may be necessary to build a more positive work environment and a more committed work force. With some targeted analyses and fresh thinking, the bank may find better ways to stimulate the most capable, to improve the motivation of the many “average” managers and staff, to help staff realize their potential, and to develop and utilize the least capable people more effectively.

Each bank faces a different situation and finds its own strategies for making improvements. Some current practices may be causing problems in these areas. Perhaps they can be stopped or modified. Managers may not have sufficient human relations skills. Perhaps training or discussion groups can improve their sensitivities and skills in this area. More likely, the priorities of the bank have focused on operations, not on people, and no one has had sufficient incentive to pursue new strategies for improving human relations.

Once the need is identified, solutions may be found in several areas—improving physical working conditions, shifting the superior-subordinate
Building Strong Management and Responding to Change

relationship to a more democratic mode, designing jobs and allocating work in more interesting ways, improving training to give workers more confidence and status, opening communications to help people feel part of a team effort, improving the perception of fairness in promotions and transfers, using transfers more liberally to reduce long periods in boring jobs, and clarifying work expectations and coaching workers to help them meet those expectations.

Many organizations throughout the world have a high sense of spirit and pride in their work and their organizations. They have not achieved these qualities accidentally. With increased attention and some changes in work practices, banks in developing countries should be able to move more quickly in this direction.

Active Management

It seems simple-minded to say that managers must manage, yet many managers do not. They may act as a “post office,” passing decisions upward and work downward; they may “administer” one or more procedures; they may devote hours each day to signing letters, authorizations, and other papers; they may issue directives to subordinates and generate one-way communications; and they certainly attend many meetings. But they are not managing. Their activities may reflect how the organization has defined the role of the manager, particularly the lower or middle manager. They may reflect a work culture in which managers are, in effect, afraid to take the risks of managing and are not expected to do so. Or they may reflect past patterns or their own personal preferences.

Whatever the history of the situation, the banking environment in most countries today requires that managers manage across all functions of the bank—credit managers, audit managers, training managers, administrative managers, accounting managers, operations managers, computer managers, branch managers, and so on. Each bank will define the role of the manager in its own way, based on its strategy, its organizational philosophy, and its trust and confidence in its managers. This chapter cannot define the role of the “ideal manager.” But we can offer a list of managerial activities that a bank might use as a reference point for defining that role:

- Prepares an operational plan for the unit.
- Sets demanding but achievable goals for the unit.
- Prepares practical action plans for achieving unit goals.
- Organizes, allocates, and builds the resources of the unit to achieve its mission.
- Activates, motivates, and focuses subordinates.
- Critiques and coaches subordinates in the conduct of their work.
- Takes responsibility for staffing and training the unit, and creating a productive work environment.
- Oversees the work of subordinates and exercises quality control over their outputs.
- Maintains good relationships with persons outside the unit who can influence or help enhance the resources and work of the unit.
- Receives, processes, and disseminates information that enables the unit to function effectively.
- Seeks opportunities for improving the unit’s policies, procedures, efficiencies, quality, and its overall results; creates positive change.
- Identifies and anticipates problems; finds ways to resolve problems.

Managers may comprise only 10 percent to 15 percent of a bank’s work force, but they are the critical group. It is important that their role in the bank be well defined, well communicated, and reinforced through the attention and examples of senior management, through training, and perhaps through the reward system.

Conclusion

Organizing people to work effectively, optimizing staffing levels and skill mix, and building the right skills and work culture, while critically important, are not enough. A bank must manage the performance of its employees directly and actively to achieve business goals. Developing and maintaining high-quality leadership is a key starting point. Preparing practical strategies and operating plans sets the directions and the objectives of the organization. Developing goals and realistic action plans for each operating unit of the bank gives each manager a clear focus for managing his or her unit. Intensifying performance monitoring, measurement, and follow-up helps all managers identify and deal with potential performance problems before they get out of hand. Basing rewards on performance can be a powerful force in focusing and motivating managers and staff to achieve priority results. Several other approaches may stimulate the most capable employees, improve the motivation of the average group of employees, and
help those with unrealized potential. And con-
ducting active and involved management, of man-
gers and by managers, is the daily force that fully
drives all the resources of the bank toward accom-
plishing its mission.

Organizational Requirements

Human resource management is clearly conducted
by both line and staff managers. In some banks,
human resource decisions and actions may be more
centralized, and, in some, more decentralized. Hu-
man resource managers may have more power in
one organization and less in another. But in all
cases, a necessary partnership exists between line
managers and human resource staff managers as
they endeavor to manage human resources effect-
vively. Neither can be fully effective without the
other. This section briefly discusses some concepts
for organizing the relative roles of line managers
and human resource staff managers and the organ-
izational support each may need.

Relative Roles of Line and Staff Managers

As noted at the beginning of this chapter, line
managers play the key execution role. They build
their organizations, develop their staff, and man-
ge the performance of their staff on a daily basis.
In so doing, they rely on their human resource
management skills, apply the various human re-
source management policies, procedures, and tools
developed by the bank, and execute key human re-
source management programs for their own use
and the use of the bank.

For example, line managers, who know their
units and its goals and its staff best, might execute
or be key players in the execution of the following
human-resource-related activities in their units:

- Organizational structuring
- Responsibility definition
- Job structuring
- Optimization of current staffing levels and
  skill mix
- Forecasts of future staffing requirements
- Skill and attitude needs analysis
- Individual assessments and plans for devel-
  opment
- On-the-job development
- Work culture development
- The selection of new staff
- Transfers in and out
- Goal setting and action planning
- Performance monitoring and measurement
- Recommendation of some rewards (promotions
  and salary increases); implementation of others
  (non-monetary)
- Career motivation
- Active management.

For many of these activities, the human resource
function may build the underlying systems and
tools, train line managers in their use, organize
implementation, assist line managers in their use,
and exercise quality control over the results. In
some areas, the human resource function might
play a more direct execution role on its own or in
support of the board of directors—for example,
redploying staff, developing the overall work cul-
ture, recruiting and selecting employees, making
initial placements, training employees, developing
managers, and making promotions and remu-
neration. Any bank must find its own optimum
balance between the roles of line managers and
the roles of the human resource function. Too much
power on one side or the other is harmful. Line
managers must be involved directly in developing
and managing their own staff. Human resource
staff must be able to take a bankwide view of the
development and management of the work force.

Organizing the Human Resource Function

To play an effective role in organizing, develop-
ing, and managing the human resources of the
bank, the human resource function requires ade-
quate expertise, credibility, staff, and budget.
Many human resource functions are devoted
primarily to "personnel administration" and are
unable to play the active leadership and manage-
ment-level roles that most banks require. In many
situations, it is beneficial to segment the adminis-
trative and recordkeeping roles of the human re-
source function (for example, processing payrolls,
pensions, insurance, housing, travel, and trans-
fers), establish them as efficient service-oriented
units, and then build up the more development-
oriented human resource roles separately, such as:

- Personnel policy and program development
- Organizational planning
- Personnel planning
- Skill and attitude needs analysis
- Performance and potential appraisal
- Individual development planning
- Training and development
- Work-culture development
- Rewards planning and management.

In some banks, a work-culture change within
the human resource function may also be neces-
Building Strong Management and Responding to Change

sary—to play a leadership role rather than solely an administrative role, to create and implement effective new bankwide programs, to work with and advise line managers, to exercise quality control over the human resource results of line managers, and to take a broad and long-range view of the development of the work force. Such a skilled and effective human resource function can be a very important resource for any bank.

Organizing the Line Management Role

Line managers can execute their assigned human resource management role effectively only if their role is well defined and communicated. If the new role is quite different from the past (for example, some line managers may have trouble with the idea of taking an active role in developing their staff) then some discussion will be necessary to explain the reasons for this role definition, its importance, and the support that line managers will have in executing their role. Objections and concerns must be addressed. Depending on the extent of the change for line managers, some more extensive change in the work culture may be necessary beyond merely communicating the new role.

Line managers may also require training for their new role. Some managers are instinctive managers of people, and others have learned to be through experience. But many need training, first in a general understanding of human resource management and its skills, and then in the specific skills required by each bank. For example, banks that expect line managers to organize and conduct on-the-job staff development, make individual assessments, prepare individual development plans, or conduct effective goal setting and action planning must train them to do so. Because programs will have been prepared for these activities, the task is to train them to apply these programs. It is not difficult to do so. These skills are not highly technical. Indeed, they are part of each manager’s experience, to one degree or another, and, in a broad sense, are familiar to line managers.

It is important also that the line managers’ human resource management role be fully institutionalized. It should be part of their job description. It may usefully be an element of their performance appraisal, depending on the kind of appraisal system in the bank. It should be part of the curriculum in orientation courses for new managers. And discussions between superior and subordinate managers should focus periodically on the condition of the work force in the unit—staffing levels, skill levels, and motivational levels—as well as the actions of the manager toward improving his or her staff. This type of discussion can strongly reinforce the responsibilities of the manager.

As noted earlier, this is not “extra” work for the line manager. It is managing. And all staff should benefit. A fully developed staff is easier to manage. Clearly, the staff benefit from better human resource management, and, in the aggregate, the bank will benefit through better individual and unit results.

Conclusion

More effective human resource management—and thus better results from management efforts—goes beyond policies and programs. Line managers and human resource staff have active roles to play. Those roles should be identified, assigned, and communicated. Line managers have a central execution role. Human resource staff have a central leadership and support role. Line managers and human resource staff must form an effective partnership. To implement new human resource management roles well, line managers need training and reinforcement, and the human resource function requires skill-building and resource development.

How Can We Cause Positive Change?

When top management decides that the bank must significantly improve its performance, change has started. But the distance between that decision and the implementation and institutionalization of the change is great. The bank may need to penetrate every aspect of the bank’s operation in one way or another—develop a new strategy and operational plan, restructure the organization, upgrade or build new management systems, add new skills, upgrade existing skills, strengthen the work culture, develop new products and services, rationalize the branch network, reduce staff, reduce other costs, improve the quality of the loan portfolio, improve customer service, increase automation, or take other major actions. A major institutional development program could take five years. A less comprehensive, but still substantive, program could easily take two or three years. But spending the time and incurring the expense does not guarantee lasting change. A key issue facing any bank in seeking major improvements in performance is how to manage that change to achieve lasting, positive results.
The change process is difficult. The existing organization is stable, relationships have been formed, people are comfortable (but not necessarily satisfied) with what they are doing, and expectations may be clear. Change will cause disruption, fear, and uncertainty. People will resist change right from the beginning—some more than others. When change is first proposed, some will deny that it is necessary, or try to minimize the scope of change, deflect or delay the change, or simply ignore it. Once this resistance is overcome and the change process has started, there will be confusion and frustration, even anger. If the change process is well managed, the organization can come through these difficult stages and engender support for—indeed, an enthusiasm and commitment to—the new ways. Each bank may be able to search its experience in trying to implement a major change program and find examples of exactly this cycle of reaction. Some change efforts may have failed because the resistance was successful at some point in the process.

Several requirements are evident in the experience of organizations that have executed major change programs successfully:

- **Provide active leadership throughout the process.** The board and top management must champion the change. Top management must want the change to happen and be prepared to see it through. It must be willing to devote the necessary time to working with subordinate managers to help them implement the change. Special leadership may be required for the entire change program—a dedicated senior executive, or a panel of senior managers who can allocate an ample amount of time to overseeing the change effort. Moreover, each module of change—reorganization, new credit processes, and the rationalization of procedures—will need its own focused leadership.

- **Prepare a thorough implementation plan.** Given the likelihood of confusion and frustration during the change process, it is important that the change effort be planned thoroughly, problems anticipated, key tasks defined, needed support identified, timetables established, responsibilities assigned, and unanticipated roadblocks foreseen.

- **Be practical about how much change can be accomplished at one time.** Every organization has its own tolerance for change. Major change requires much time by senior management, and some of the best people in the bank must be involved. Different types of changes may affect some parts of the organization simultaneously. Some types of change must be sequenced. Five or six major change programs being conducted simultaneously may be too much. Management should make a practical assessment of how much change can be tolerated and avoid an overly ambitious change program.

- **Build commitment to change.** Successful change cannot simply be dictated. Individuals have too much at stake in the status quo. People must be convinced of the need for change, and why it is good for the bank and for them, and then be given the time to become comfortable with the new process or new organization or other change. Training is required to reduce uncertainty and build confidence, as well as to build new skills. Encouragement and praise for positive steps will help the process considerably.

- **Keep communications open.** Management should be open about the "why" and the "what" of the change. Management must also encourage feedback about fears, concerns, uncertainties, questions, or anything else that could be an obstacle to effective implementation, and respond to those communications.

- **Set good examples.** Managers must consistently set good examples, become role models of the new behavior, use the new processes, and follow the new organization. If employees see that managers are changing, they will follow; if managers do not appear to be changing, employees will ignore the effort to change.

Banks that have their own examples of successful change efforts will have their own techniques for causing lasting change. They will also know that the process of change must be managed carefully.

**Conclusion**

This chapter has discussed typical problems and potential solutions to four sets of human resource management objectives that are fundamental for all banks in developing countries:

- **Organize people to work effectively.**
- **Optimize staffing levels and skill mix today and plan for them for the future.**
- **Build the right skills and work culture.**
- **Manage performance to achieve institutional goals.**

The discussion has taken a broad view of human resource management, to embrace the roles of line managers in human resource management, as well as the role of human resource professionals. We have further defined some concepts for allocating human resource management roles between line managers and human resource staff.
build an effective partnership in managing a bank’s human resources.

Clearly it is impossible to generalize the human resource development needs of all banks in developing countries. Some are in better condition than others. Some face a much more demanding environment than others. And the banking systems of these countries are in different stages of evolution. But with this said, two fundamental needs appear to be common to banks in developing countries worldwide:

- Build the right skills among managers, technicians, and staff to operate all units of the bank. Most banks must expand and accelerate training.
- Build the right work culture. Many bank managers know they have significant problems in this area, but they find it hard to define and even harder to deal with. But it is becoming clearer what must be done and also how it can be done.

Banks that deal effectively with these two needs will solve a range of human resource problems and business problems. Moreover, they will build essential resources to cope with the many additional demands they will inevitably face.
6. Toward a Program of Institutional Reform

As governments undertake far-reaching policy reforms in the financial sector, the environment in which banks operate changes. So, too, do the requirements of management. These include responsiveness to competition; management of (credit, interest rate, foreign exchange, and maturity transformation) risk; setting and meeting financial targets, and meeting the standards of enhanced prudential regulation, supervision, and transparent accounting. Moreover, in some banking systems, policy reform has been accompanied by the financial restructuring of insolvent banks. This, in turn, has led to organizational restructuring and the strengthening of management to prevent renewed loan portfolio deterioration, to increase efficiency, and to improve corporate governance. Comprehensive institutional reform normally requires strengthening the functional areas and involves establishing:

- A strategy and business plan addressing qualitative and quantitative performance targets.
- A corporate structure, revised to better delineate accountabilities and responsibilities.
- Policies and procedures for the major functional areas, such as credit-risk management, financial management, and human resource management.
- Efficient operating procedures for improved customer service, greater efficiency, and internal control.
- A commercial orientation toward customers and financial management, with profit and asset quality as explicit objectives.
- Information technology to support the delivery of bank products and services, as well as financial management and reporting.

Box 6.1 illustrates the phasing of a comprehensive institutional development program for banks in developing markets.

A Framework for Institutional Development

Institutional Development

Diagnostic studies of a bank’s strategy, organizational structure, and management systems are the starting point for any institutional strengthening program. The following diagnostic approach provides a structure that can be adapted to other management functions. It starts by defining the desired results of the function, then assesses whether or not those results are currently achieved, next identifies the causes of the current condition, and last, defines priority improvement initiatives.

Technical assistance is often used by banks for the in-depth diagnostic analysis and for implementation of the reform program. Strengthening needs are normally expressed as terms of reference or plans of action, which delineate program expectations and define the parameters of an agreement for engaging the necessary expertise.

There are five main sources of this expertise:
- **Foreign banks**—Under a cooperation agreement or management contract, major foreign banks associate (or “twin”) themselves with local banks. The foreign banks provide staff, training facilities, and information technology, and help with corporate policy and procedures manuals.

Such cooperation with well-managed foreign banks, which has been adopted in Poland for example, can be of great benefit to banks in developing markets; it can lead to long-term collaboration or even investment. However, comprehensive institutional development requires a commitment of financial and human resources by the foreign bank, which many are unwilling to undertake in the absence of a financial stake.

- **Consulting firms**—are widely used in com-
Building Strong Management and Responding to Change

Box 6.1 Framework for Phasing an Institutional Development Program for Banks

<table>
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<tr>
<th>Build the Business Vision</th>
<th>Build the Infrastructure</th>
<th>Install New Management Processes</th>
<th>Upgrade Skills</th>
<th>Change Managers' Behavior</th>
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<td>Corporate strategy</td>
<td>Organization structure</td>
<td>Credit management</td>
<td>Managerial skills</td>
<td>Culture change programs</td>
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<td>Business plan</td>
<td>Organization staffing</td>
<td>Asset and financial management</td>
<td>Functional skills</td>
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<td></td>
<td>Operations design</td>
<td>Business planning and budgeting</td>
<td>Skills in new management processes</td>
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Source: Booz-Allen & Hamilton.

Comprehensive institutional development. Many such firms have extensive experience not only in strengthening the functional areas (such as financial management, credit, and strategic planning) but also in effecting broad institutional change. This approach is costly, however, and the firm that is selected should be carefully vetted. Consulting firms have been successfully used in Indonesia, Sri Lanka, Brazil, and Hungary.

- **Banking professionals**—Experienced national or expatriate professionals can strengthen bank management. In many countries—for example, Chile, the Philippines, Indonesia, and Turkey—nationals trained by major foreign banks have been hired by domestic banks, but in others, such as Ghana, foreign nationals have been brought in to strengthen management.

This approach works best in small banks—for example, where one person with broad functional and management experience is brought in to advise the bank's president or where one function, such as credit, needs strengthening by a specialist. For large banks this approach is too ad hoc.

- **Training** is a critical component of any comprehensive institutional development. However, training a few individuals for short periods is insufficient to accomplish the large-scale changes needed in the management of banks in developing markets. In some countries, such as China, banks have sent staff abroad to study or to train with correspondent banks; the techniques they have learned are then adapted and incorporated into their management process. However, this type of institutional development does not foresee radical, but rather incremental, change. It is a lengthy process and probably unsuited to banks seeking quick reform of management systems.

- **Privatization**—The contribution of privatization to institutional development of state-owned banks is closely related to the characteristics of the
private shareholders. Private banking does not necessarily mean good banking. Ownership is receiving increasing attention for its potential contribution to efficiency. For some banks in developing markets an investment of at least 15 percent of share capital by a financial institution with strong management (a so-called strategic investor) is more likely to contribute to institutional development than a similar stake by a passive (financial) investor.

**Bank Privatization Issues—A Framework for Analysis**

Although the approach to bank privatization differs from country to country, there are common issues that need to be considered in any program:

**Government's Objectives.** The government's objectives are likely to be multiple, even contradictory, but will include greater efficiency, more competition in the banking system, increased government revenue (or reduction of the national debt from the sale), establishing private property (particularly in Eastern Europe), and development of the capital market.

**Banks' Objectives,** which may include: institutional modernization, staff training, technology transfer, increase in capital, and greater autonomy.

**Shareholder Suitability.** Owners, through a qualified board of directors and professional management, can encourage bank efficiency and prudent banking practices. Private ownership per se does not, however, ensure efficiency or prudence. That is why it is important to consider carefully the alternatives for a particular bank privatization. Individual shareholders, bank staff, enterprises, foreign banks or insurance companies, and domestic financial institutions all have their advantages and drawbacks.

**Valuation.** Various techniques used in privatization can be useful in quantifying a ballpark "value" of a bank and establishing broad pricing parameters. Net asset value, P/E ratio, discounted cash flow, payback period, and market value are among them. Franchise value, though not a technique of analysis, may be factored into the price.

**Price.** Understandably, governments are reluctant to sell off the national patrimony at discount prices. Price, however, should not be the main consideration in bank privatization. The quality of ownership is key to maximizing the value of banking to the economy in terms of contribution to efficient resource mobilization and allocation and the provision of banking services.

**Investor Incentives.** In some bank privatizations, investors have been offered incentives or assistance in share purchases. These are not usually publicized, but the most frequently used are payment terms, guarantees, portfolio relief, regulatory forbearance, and loans to some purchasers (for example, bank staff).

**Method of Sale.** The method of sale relates closely to the profile of the desired owners but is constrained by the depth of the domestic equity market. Public offering or direct placement are the two common forms.

**Preparation** for privatization breaks down into the necessary and the discretionary, and often includes:

- Corporatization, or conversion into a joint-stock company, which is necessary and usually the first step in any privatization.
- A special audit, including a review of the loan portfolio, essential for valuation, for pricing, and for any financial restructuring.
- Financial restructuring involving writing off identified bad assets unless purchasers have been indemnified for costs and losses associated with bad assets.
- Reduction of staff redundancies.
- Institutional strengthening, which is discretionary and depends on the nature of privatization envisioned. If shares are to be sold to the public, institutional development should precede privatization. If shares are to be sold to a strategic investor, say to another bank, that bank would probably be involved in transforming the institution. In fact, institutional development is one of the major reasons for selecting a bank investor.
- Technology upgrade, which is also discretionary.

Where shares are offered for sale publicly, the capital market may also need to be prepared through advertising and marketing campaigns.

**Management Prerogatives and Control.** When banks are partly privatized and government retains a voting majority, two important issues arise: the autonomy of the bank in lending and staffing decisions and the composition and role of directors. Without autonomy and a capable board to exercise governance, the benefits of privatization could be diluted.

**Essential Preconditions for Bank Privatization** include a strong legal and regulatory framework, as well as auditing and accounting standards. Where trade liberalization, price, and foreign exchange reforms are envisioned, they should pre-
cede bank privatization so that their effect on bank loan portfolios will be transparent. Finally, bank solvency is essential to privatization. As prospective purchasers, major banks are certain to undertake portfolio reviews to confirm asset quality. Where shares are sold to individuals, the authorities must exercise due diligence.

Training in Institutional Development

Substantial training is needed to support institutional development. In many developing financial markets, particularly in Eastern Europe and the former USSR, scarce skills are a huge impediment to banking development. In those countries, training poses a unique dilemma. On the one hand, training is most effective when it responds to identified skills needs; on the other, those skills needs have not yet been identified.

In developed banking markets, training is most often given in the technical or managerial skills necessary to carry out defined activities for which a policy and procedural framework exist. In developing markets, a more dynamic approach is needed because many changes in a bank's policies, procedures, and operations will be implemented during the course of institutional development programs. Essentially, such programs define new banking jobs for which staff and management will be trained, thereby establishing the objectives and content of training.

Training within a framework undergoing radical transformation will be interactive. To accomplish it will require skill and flexibility. Training programs can initially cover core needs in basic banking disciplines, so that staff can operate more effectively. These skills will allow bankers to participate productively with foreign experts in implementing institutional development, as well as prepare staff for evolving financial markets. Functionally relevant training programs are urgently needed in credit analysis and risk management, financial management, money and capital markets, foreign exchange, and marketing. (See the annex to this chapter for an outline of a core program.)

Information Technology and Bank Automation

Banking has been revolutionized by Information Technology (IT). A few banks in developing markets are substantial and efficient users of IT; many are not. Bank managers see technology as a tool for rapid modernization and are impatient to install systems to improve service delivery, obtain much needed management information, and increase efficiency. However, IT should support the management process, not precede its development. Care should be taken not to proceed hastily with technology that could prove inefficient—if not inapplicable—once a comprehensive institutional development program is defined.

IT will be most beneficial if it supports a bank's strategy and business plan, its products and services and if information requirements are designed by line managers with a clear idea of the information needed to manage and control the business and risks. Because comprehensive institutional development programs address these very issues, it is necessary for IT strategy to support the needs revealed by these programs. Appendix 5 ("Information Technology in the Banking Industry") covers: the applicability of IT to banking, management, and organizational issues; the process of implementing IT in banking institutions; and technical issues, such as system engineering/design, applications software, and hardware architecture. Box 6.2 shows the links between organizational development and IT.

The World Bank and Institutional Development—Reflections on Experience

Establishing the preconditions for effective and sustainable institutional development emerged as a major concern in the 1980s. Programs that disregard their macroeconomic and institutional context have been disappointing. For commercial banks, the sustainability of institutional reforms is greatly enhanced by a policy and institutional framework conducive to efficient, solvent, and viable banking. Such a framework encompasses commercial law (including bankruptcy law), banking law, and banking regulation and supervision; the institutional capacity to implement policies, laws, and regulations; and, ideally, a stable macroeconomic environment and sensible monetary and credit policy. Sound accounting and audit practices are also essential for prudent and efficient banking. So, too, is banking expertise.

From two recent cross-sectoral studies (recommended for their thorough treatment of generic institutional development issues in World Bank projects [Paul 1990; Buyck 1991]) some important lessons for commercial bank programs can be drawn:
Box 6.2 Strategic Management of Technology

Key Questions
- What software?
  - Package
  - Development
  - Current
- What hardware?
  - Centralized
  - Distributed
  - Stand-alone
  - Mainframe
  - Mini
  - PC
- What communications are required?
  - Online real time
  - End of day
  - End of month
  - Interbranch
  - International
- What organizational changes are required?
  - EDP structure
  - EDP personnel skills
  - EDP policies and procedures
- How to "manage" technology?
  - User participation
  - Top management participation

Results
- Integrated technology plan
- Systems driven by bank objectives and strategies

System's Role in Achieving Strategies
- Customer service
- Cost reduction
- Profit improvement
- Information

Adequacy of Current Systems
- Support strategy?
- Support users?
- Maintenance?

Bank objectives and strategies

"Gap"

Source: Booz-Allen & Hamilton.

- Country-specific sector institutional development strategies are needed to provide a long-term perspective to project design.
- In-depth institutional diagnostic analysis is a precondition for effective project design.
- While project implementation is important, sustainability is critical and often receives too little attention.
- Complex, sectorwide institutional development programs call for extensive supervision and flexibility.
- Institutional diagnosis and project design should involve the participation of project participants.

Building strong banking institutions to meet the challenges of a changing market is a complex and lengthy process. Even in highly developed financial markets, some banks fail to meet the challenge. There is no model program because of differences in levels of institutional development, in economic and market conditions, and in available skills. Implementing change, which is often dis-
ruptive, requires the conviction that change is necessary. A committed chief executive officer and willing senior managers are essential. The fundamentals of good banking are straightforward. This volume outlines the best management practices in the most important functional disciplines of banking, which are becoming widespread internationally.

Experience has shown that a program of comprehensive institutional change may take up to five years to implement. It is time to begin.

Annex A: Core Curriculum

The core curriculum would consist of financial accounting, credit, and lending. These are the central topics in banks' professional training programs. Courses in planning, budgeting, and performance measurement and in other topics of financial management, such as asset and liability management, are also needed in order to reorient the way banks are managed and to respond to the needs of financial market liberalization. The audience for the financial management courses would be somewhat more restricted. General courses on such topics as an introduction to money and banking, financial markets, marketing, human resource management, and trade finance would need to be prioritized.

Credit Training

ACCOUNTING REVIEW/FINANCIAL ANALYSIS.
- Review of basic, internationally acceptable accounting concepts.
- Spreading financial statements.
- Key ratios; ratio interpretation, trend analysis, industry characteristics by sector.
- Techniques of financial statement analysis.
- Cash flow and funds flow analysis; calculation based on balance sheet and income statement data.
- Microcomputer-assisted financial analysis.
- Cash flow forecasting; sensitivity analysis.
- Introductory corporate finance; why companies borrow and how they repay; financing choices; asset conversion cycle; receivables and inventories.
- How to assess the quality of financial information; techniques for reconstructing financial statements.

PRINCIPLES OF CREDIT.
- Short-term versus long-term structuring of credit; identification of customer needs.
- Forecasting client’s future need for funds.
- Identifying credit risks.
- Identifying problem loans; early signs of deterioration; proper action; monitoring a deteriorating credit.
- Strategies for handling problem loans and work-outs.
- Name lending versus lending on a cash flow basis.
- Industry analysis/specialized lending/sector analysis.
- Loan administration.
- Collateral and security; myth and reality.
- The credit process from loan initiation to repayment.
- Borrower selection; market analysis; marketing techniques.

SPECIALIZED LENDING. Specialized lending courses would be provided to small groups in need of such specialized lending skills.

LENDING TO SMALL AND MEDIUM-SIZE ENTERPRISES. A specialized module on the principles and approaches of lending to small and medium-size enterprises where financial information is scarce, unreliable, or unavailable.

PROJECT FINANCE.
- Feasibility studies
- Project timing and schedules
- Cost benefit analysis
- Price changes; international cost comparisons
- Exchange rate estimates
- Financial projections
- Sensitivity analysis
- Financing plan
- Calculating the financial rate of return
- Calculating the economic rate of return
- Project supervision.

Corporate Restructuring

Other courses:
- Financial management
  — Treasury management
  — Asset and liability management
— Foreign exchange management
— Internal audit
— Operational and financial controls
  • Planning
  • Human resources management
— Supervisory skills
— Skills needs assessment techniques
— Performance appraisal and incentive systems
— Career development.
• Marketing/selling skills
• International and domestic payments systems

• Information technology in banking
• Management information systems
• Trade finance
• Train the trainer.

Notes

1. Diagnostic studies have been found (in Poland, for example) to be an important learning process in themselves, raising awareness of the critical needs in institution building for a particular bank.
Appendix 1.
Risk Asset Management Review

Overview

This appendix describes a methodology to be followed by a bank’s internal loan review department to perform a loan portfolio and risk management review of a lending department or a branch. It is based on a guide actually used at a major U.S. bank.

Risk asset management should achieve three objectives:

- To create and manage risk assets to achieve long-term corporate earnings objectives.
- To establish identifiable procedures, common to each business and each market, that will ensure risk asset portfolios of predictably high quality.
- To integrate line management, credit policy and supervision, and the risk asset review into a matrix of complementary responsibilities.

Process and Portfolio Defined

Risk management covers the flow of activities involved in the creation and management of risk assets. The quality of a portfolio of risk assets is determined largely by the underlying process. The risk management process is both deliberate and anticipatory and consists of three broad categories.

- Normal portfolio management is the conventional sequence of four activities—target market identification, credit initiation and analysis, documentation and disbursement, and credit/risk administration—and the complementary observance of other elements grouped under the headings policy, practice and procedure, and problem recognition.
- Remedial management constitutes a distinct activity that focuses on correcting weaknesses encountered in the course of normal portfolio management.
- Organization and staffing constitute four activities: organization and deployment, staffing adequacy, staff continuity, and coaching and training. These activities underscore the critical role of people in the management of risks.

Portfolio quality is evaluated from three perspectives:

- Environmental context, an appraisal of individual credits and the overall portfolio within the context of both local and global economic conditions and the local political and regulatory environment.
- Portfolio composition, an appraisal of individual credits within the context of an appropriate distribution of quality, liquidity, and various concentrations (sectors, industries, currencies, etc.).
- Individual credits, an appraisal of individual transactions and a judgment about their collectibility within originally intended terms.

Portfolio quality is not a function of past actions and decisions alone. Environmental factors also affect business strategy and portfolio quality and will bear directly upon the requirements by which the quality and management of a portfolio are evaluated.

Review Mission

These concepts—portfolio and risk management quality—provide the foundation for risk asset review. Through independent reviews it is possible to:

- Evaluate the procedures and practices of line management and their adherence to established standards and policies for managing risk assets and business risks.
- Determine the quality of risk assets, the need for provisions, and the potential for loss.
- Follow—in concert with line management and credit policy and supervision—asset classification and provision or write-off requirements to
ensure that appropriate actions are being implemented in each area.

**Portfolio Analysis and Quality**

**Introduction**

Determining portfolio quality requires the review of individual credits to identify potential losses. The provisions and write-offs likely to arise from a given portfolio (loss probability) can be estimated from the amount and mix of classified credits within it.

Portfolio composition (for example, individual or industry concentrations), environmental characteristics, and trends can adversely affect specific credits, thereby increasing the loss potential within the portfolio.

**Business Segments**

Different degrees of risk are associated with each industry segment. Loan-loss norms established by business managers reflect the different risk characteristics of each business. These risks must be identified and understood by the reviewer.

**Analysis**

Credit review does not mean reconsideration of the decision to extend credit, but, rather, the process associated with the credit decisions consumed during the period under review. The emphasis should be on identifying weaknesses, trends, risks, and so forth, and determining the adequacy of present safeguards (for example, collateral, covenants, and alternative repayment sources). To the extent that file memoranda, financial statements, or credit analyses do not provide satisfactory or sufficient material to permit a conclusion about quality or collectibility, questions must be addressed to the relationship manager and/or senior line management. In a broader sense, these interviews are also critical to assessing relationship manager proficiency and awareness of risk management activities as they pertain to the organizational and staffing aspects of the process review.

The following guidelines may be useful in credit reviews:

- **Facilities versus financials.** Are credit facilities reasonable given the company's financials, its other bank lines and usage, and the nature of its business? Are facilities directly or indirectly (holding company) subordinated to others? Are the facilities "clean," or dependent upon complex security and documentation? Are the transaction's purpose and structure clear and appropriate?

- **Repayment sources—** Are repayment sources identified and reasonable? Are there second and third ways out? Are they independent of each other? Does historical performance justify confidence in repayment sources and forecaster cash flows? Is sensitivity ("what if") analysis performed where appropriate? What reliance is placed on letters of support or guarantees, and are they "real"?

- **Customer knowledge—** Does the file document a thorough understanding of the client's financial dynamics, industry position, and characteristics? What is the extent of financial disclosure? Special industry knowledge and approval? Special regulatory considerations and/or economic cycle implications? Are management contacts (depth, range, and frequency) documented? Is management performance analyzed? Does account management demonstrate an acceptable and credible grasp of the borrower's financial and management performance?

- **Economic policy and country exposure considerations—** Are credit proposals sensitive to economic considerations, such as government balance-of-payment policies? Are the country exposures of individual borrowers in sensitive geographic areas known and evaluated? How are these exposures tracked and evaluated by the relationship manager? What steps is the account manager taking to manage approved but booked-elsewhere risk asset exposure?

- **Borrowing documentation—** How has the lending area determined the appropriateness of documentation in terms of loan structure, legal norm, approval, and validity?

- **Loan monitoring—** Are all credit terms, covenants, and repayment schedules respected and up-to-date? Are they tracked regularly? Has any interest been capitalized? Are line excesses and overdrafts (if any) reasonable and properly approved? Are there any recurring overdrafts? Are financial data and analyses timely? Are industry data current? If there are any signs of weaknesses, are they noted, and appropriate remedial steps taken?

**Watchlist**

The watchlist is an optional part of the line's credit review system and should be the end product of an early-warning and self-policing portfolio re-
view function. By definition, all watchlisted names are “current”—that is, payments are timely.

Normally, the basis for watchlist designation is material change in a borrower’s financial condition, present or expected, the implications of which are not clear. Other reasons for using the watchlist exist, such as the presence of a specialized lending structure and/or credit monitoring process which is atypical of that which is customary in the portfolio managed by the unit. Examples of material change in a credit include current or anticipated alterations in (a) industry patterns or structures; (b) management composition or succession; (c) the impact of national or international political and economic trends; (d) the nature of the lender and borrower relationship; (e) borrower performance versus budget or forecast; and (f) the nature of joint-venture arrangements or relationships.

**Classification of Credits**

In the U.S., federal bank regulators use five similar classifications, which are designed to:

- Highlight problem credits for attention and remedial action at all appropriate levels.
- Categorize problem credits according to the severity of actual and potential risk of loss.
- Apply a common language and method to identifying and managing problem credit.
- Subject problem credits to additional senior analysis on a periodic basis and ensure appropriate remedial action.
- Ensure the adequacy of the bank’s aggregate loan-loss provision.

**Classification Definitions and Requirements**

When classification of a credit is warranted, one of the following classification levels should be applied:

IA (OTHER ASSETS ESPECIALLY MENTIONED, OR OAM).

**Definition:** Credits with evidence of weaknesses in the borrower’s financial condition or creditworthiness, or which are subject to an unrealistic repayment program, or which are lacking adequate collateral, credit information, or documentation. If sufficiently severe or advanced, these or other conditions would warrant a worse classification. Early attention, including substantive discussions with borrowers, is required to correct deficiencies.

**Requirements:** Upon classification, referral of credit to next higher approval level for approval, and the development of future strategy, including triggers for reclassification. At least calendar quarterly review of credit via a classified loan management report (CLMR) by a senior credit officer.

II (SUBSTANDARD).

**Definition:** Credits on which the normal repayment of principal and interest may be, or has been, jeopardized by reason of severely adverse trends or developments of a financial, managerial, economic, or political nature, or by important weaknesses, or collateral. No loss is foreseen, but a protracted workout is a possibility. Prompt corrective action is required to strengthen the bank’s position as a lender, to reduce its exposure, and to ensure that adequate remedial measures are taken by the borrower.

**Requirements:** Consultation with credit policy is required for any increase. Monthly review of CLMRs by a senior credit officer is required.

III (DOUBTFUL).

**Definition:** Credits, full repayment of which appears questionable on the basis of available information, and which therefore suggest a degree of eventual loss not yet determinable as to amount or timing. Vigorous action is required to avert or minimize losses.

**Requirements:** Same as II, except that outstandings must be placed on a cash basis and any previously accrued and unpaid interest reversed. The principal must be transferred to cash basis loans. The principal should be reserved or written off as deemed necessary.

IV (LOSS).

**Definition:** Credits that are regarded as uncollectible.

**Requirement:** Any amount so classified should be promptly written off, and previously accrued and unpaid interest must be reversed. A classification of IV does not mean there is no potential for eventual recovery. Responsible units are expected to continue a vigorous collection effort until it is decided that no further repayment or recovery is possible. At least semi-annual review of written-off loans (via CLMR) is required. Once it is determined that no repayment or recovery is possible, an abandonment certificate (AC) should be processed.

**Classification Characteristics**

The following characteristics, while not inclusive, suggest the basis upon which at least a IA classification is initiated. Proper classification involves
(a) differentiation between symptoms (for example, margin erosion) and their causes (for example, oversupply, product obsolescence, and rising cost); (b) assessment of the borrower’s ability to rectify the problem within a reasonable time frame; and (c) consideration of options available to the unit for improving its position as a creditor.

IA (Evidence of Weakness).

- Environmental/Operational
  - Clear evidence of adverse changes described under watchlist
  - Absence of controls (sloppy plant, frequent accidents, or messy inventory)
  - Labor problems
  - Lack of management depth or key management departures
  - Cash-draining subsidiaries
  - Overreliance on single product/supplier/customer
  - Products subject to intense competition or technological obsolescence
  - Overreliance on imports/exports or certain types of currencies that bear strong devaluation risks
  - Adverse regulatory, political, or economic environment

- Financial performance
  - Adverse trend in sales and earnings
  - Profit margin erosion
  - Interim losses
  - Fixed-price contracts in highly inflationary environment

- Balance sheet deterioration
  - Leverage relative to past, plan, industry norms, etc.
  - Receivable or inventory excesses (MIS/control problems?)
  - Trade payable slowness

- Transactional
  - No seasonal line cleanup, lingering overdraft excesses
  - Term-loan covenant violations (waivers, amendments, etc.)
  - Long-term needs financed with short-term facilities
  - Unrealistic repayment schedule
  - Diversion of loan proceeds to other than stated use

- Other
  - Lack of client contact/plant visits
  - Weak operational or financial controls and internal MIS
  - Inadequate or outdated financial data

- Qualified auditor’s opinion
- Material litigation.

II (Substandard).

- Same as above but a more aggravated situation than under the IA level
- Overreliance on single product/supplier/customer
- Bankruptcy, foreclosure, or forced liquidation.

III (Doubtful).

- The prospect of loss warrants an assignment of a III classification. Characteristics more adverse than those above and in addition may include:
  - Auditor’s disclaimer of opinion or qualification about continued viability
  - Uncertain collateral coverage
  - Negative net worth and working capital
  - Trade credit frozen
  - Full recovery dependent upon unlikely events

Classification Initiation

Management has the prime responsibility for classifying credits. Risk asset review (RAR) may decide to initiate a classification or reclassify a credit during a review. It is important that every effort be made at this time to reach agreement with management on the level of classification for each classified name. If agreement cannot be reached, then the RAR evaluation will prevail (in such cases it may be useful to elevate the discussion to higher levels).

Risk Management Analysis and Quality

Introduction

Risk management comprises the following activities:
Building Strong Management and Responding to Change

- Normal management
  - Target market
  - Credit initiation and analysis
  - Documentation and disbursement
  - Credit/risk administration
  - Problem recognition, portfolio/process
  - Policy, practice, and procedure
- Remedial management, portfolio/process
- Organization and staffing
  - Organization and deployment
  - Staffing adequacy (including support units)
  - Staff continuity
  - Coaching and training.
RAR evaluates and rates each activity. The ratings are aggregated on a weighted basis to determine the unit's overall process rating.

The diverse inputs accumulated during the review should be integrated into a balanced and objective assessment of the unit's risk management process. This assessment will inevitably be affected by, among other things, institutional standards, the nature of the risks managed, external environmental conditions, and the limitation of the reviewer's own experience. It is essential, therefore, that the reviewer's judgment is substantiated by facts through comprehensive, resourceful, and well-documented review work. As a general rule, the greater the unit's business risks, the stronger the process needed.

**Normal Management**

The continuous creation, administration, and, ultimately, liquidation (or collection) of risk assets and business risks in accordance with the unit's objectives and expectations constitute "normal" management.

**Target Market**

Implicit in the notion of "target market" is business discipline and selectivity. Identifying business potential, defining desirable opportunities, and adhering to resultant marketing objectives and strategies are the critical aspects of this process. An unfocused approach to the market can lead to unplanned asset concentrations of uneven quality with a less-than-optimum allocation of staff resources. The quality of target market analysis, therefore, affects both process and portfolio quality.

Target market planning is not an academic, once-a-year exercise. It is a continuous and evolutionary process involving the development and listing of alternative business strategies. Target market plans should be written and should be consistent with existing management business/credit/operating plans.

The logic behind the documentation of and adherence to target market plans should be examined. Strategies must be consistent with external constraints, opportunities, and internal resources. The ultimate test is how portfolio mix and risk profiles reflect these initiatives in terms of old business phased-out and new business added.

Standards for this process block vary, depending on business risks and priorities, but generally include:
- **Surveys**—Indication that the entire market has been surveyed and business potential identified. What risks and earnings opportunities exist? With whom? For what products?
- **Screening**—Evidence that workable and appropriate risk asset acceptance criteria (RAAC) exist, are communicated and understood throughout the line organization, and are used to "screen" the market in a structured manner. RAAC must take account of relationship risk and profitability goals (time frame specified), the managerial and financial quality and depth of the borrower, social/economic/political importance, portfolio mix, etc. It is important that credit presentations address, and are consistent with, screening indicators.

Product risk acceptance criteria (PRAC) should be formulated and approved as new products are developed.
- **Priorities**—Prospects should be prioritized logically according to screening indicators chosen. Prospect file contents (call memoranda, financial statement, etc.) should substantiate inclusion in the target market.

Prospects/transactions rejected by the unit should reflect application of RAAC.
- **Prospects**—Prospect files should evidence current calls and financials, and show that a meaningful prospect data base is being assembled and maintained.
- **Assignments**—Prospect names are assigned to relationship managers and the target market plan periodically updated and revised.
- **Elimination**—A "weedout" program for non-target market names (other than approved exceptions) should be in place (with target dates).
- **Adherence**—There must be evidence that new business adheres to, or follows, the market plan and RAAC rather than having been accepted merely because it was "doable."
• **Exceptions**—Target market exceptions should be reasonable in amount and number, addressed logically, and adequately approved and documented. Flexibility must exist to allow for institutional considerations and unusual growth opportunities.

• **Organization**—Staffing levels and experience, as well as credit training, complement the market plan.

• **Understanding**—Unit officers must participate in, understand, and endorse the target market process to redefine their skills and efforts. (Test: Do officers continually generate nontarget business that must be killed by seniors?) The relationship managers ideally should also be responsible for developing and updating specific industry reviews, determining industry critical success factors, and thus developing specific RAACs for these industries for approval at higher levels. This demonstrates the depth to which the TM should logically be taken in the unit and the fact that the TM is usually considered to be built from the bottom up.

Target market studies are dynamic, subject to continuing refinement as units mature, information accumulates, or risks/products and environments change. RAAC, the guidelines by which markets (borrowers, transactions, etc.) are screened, should reflect both credit and marketing considerations. They range from the complex to the simple, depending on the circumstances. Line management determines its own business objectives, but RAR should evaluate the thoroughness of the process, the suitability of the criteria and market definition to the unit’s business, and the understanding and implementation of the target market guidelines, RAAC, and PRAC.

**Credit Initiation and Analysis**

These activities cover the evaluation, analysis, and approval of individual transactions involving credit and other forms of revenue-generating elements of risk. Credit initiation includes incremental risk decisions (additions, increases, restructures, new extensions and annual or periodic reviews supporting line renewals, term loans, etc.). Also included is the full information-gathering, financial analysis, and other process elements leading up to the execution of the decisions. Risk appraisal is an ongoing process, not simply a matter of annual reviews.

Credit initiation and analysis standards vary according to business segment, product, and market. The suitability of such standards to the unit’s business is subject to review. Transaction characteristics, borrower quality, environmental issues, and risks involved all influence judgment about the unit’s adherence to these standards.

The following considerations provide a framework within which the reviewer can judge the quality of credit initiation and analysis.

**Approval Process**

As credit authority decentralizes, target markets broaden, and response times shrink, the tasks of higher-level approving officers become increasingly difficult. This is particularly the case where approval levels are geographically dispersed. Accordingly, the reviewer’s attention should focus on:

• Documented direct involvement by at least the primary approving officers. This should include client management contact, coaching, written questions and answers on credits, margin comments, etc., and the circulation of interim credit memoranda advising approvers of developments.

• Nature and depth of senior approvers’ involvement, sufficiency of information in credit memoranda, and balance in presentations, client exposure for major credits, etc., are areas for review. Approval patterns also merit examination to ensure effective use of senior lenders with relevant experience. Client contact is expected in situations when the uniqueness/complexity of the credit requires direct client knowledge.

**Individual Credit Decision**

A unit’s evaluation of individual transactions must be clear and conclusive and must cover all strengths and weaknesses. The following guidelines will permit the reviewer to focus on key factors when examining credit evaluations.

**PURPOSE.** The use of proceeds is clearly defined and reasonable (for example, “working capital needs” is not acceptable).

**RISK ASSET STRUCTURE.** The structure reflects the credit risks and protects the institutions against other creditors: appropriate covenants provide sufficient time to permit remedial action in the event of difficulty; other debt indentures are analyzed for events of default that would trigger cross-default trading/operating cycle versus the repayment schedule. Pay particular attention to the rationale for, and monitoring of, nonamortizing transactions (for example, casual or temporary overdrafts, current account advances, demand loans, and “bul-
let” loans), or renewals and rollovers by offering ticket. Similarly, carefully review lengthy grace periods and maturities. These types of transactions are the most frequently abused.

Financial Analysis/Repayment. Analysis is tailored in scope and depth to transactions, with risks clearly identified and assessed through a focus on:
- Performance on a historical basis.
- A clear evaluation of forecasted performance.
- Specific identification and evaluation of repayment alternatives or ways out.
- Evaluation of collateral/support/guarantees.
- Sensitivity of repayment schedule to risk factors (economic, regulatory, competitive, etc.).
- Industry knowledge and outlook.

Qualitative Issues. Financial analysis is but one dimension of credit analysis; relevant nonquantitative aspects include:
- Industry—Borrower’s competitive positions in its industry and the position of that industry in the region or country.
- Government—Likelihood of intervention or support; implications of balance of payment/currency defense measures (for example, taxation, trade barriers, and foreign exchange availability).
- Auditor—Quality of financial information and auditor’s reputation.

Management Analysis. Done on a continuing basis with reasons supporting assessments clearly stated. Must extend beyond financial management team wherever possible (vertically within financial management and horizontally across other functions). Must review, where warranted, personnel development programs, turnover, ability to manage change, and ability to interact with regulators. Emphasis on character and capacity of key individuals is particularly important in instances where depth is limited. These assessments should include the judgments of the most experienced officers in the reviewed unit.

Client Contact. Note regularity, depth, quality, breadth (including plant visits), and results of customer calls, and their impact on building knowledge base on management and the company. Is there a systematic call program, and are calls an effective ingredient in credit evaluation? Does account management have a clear understanding of the customer’s financial plan and the bank’s role? Are the customer’s own measures of performance understood, documented, and tracked? Does the client of the bank have the initiative in the relationship? Are seniors and needed specialists participating in the calling effort?

Credit Checkings. Incorporation of checkings into credit proposals and analysis of any negative information. Preferably, the scope and substance of checkings should be detailed in separate memoranda and lodged in a proper section of the credit file. Often, informal intelligence gathered in the marketplace is more important than formal bank checkings and should be documented periodically.

Annual Reviews. Timeliness and quality of annual reviews of credit facilities, incorporating the above elements of the credit initiation process. Particular attention to comparisons of actual performance with expectations and reasons for variances.

Trustee/Ship and Agent Responsibilities. Analysis of any potential conflict between fiduciary responsibilities as trustee or agent and interests as a direct creditor.

Approvals and Cross-checking. Proper approval levels, geographic or sovereign risk approval, specialized industry concurrence and consultation where required or pertinent, observance of institutional account procedures, and any other critical expert consultation. Frequent, thoughtful consultation is a strong indicator of healthy process.

Documentation and Disbursement

The key elements of this activity are the quality of loan documentation, the systems required to keep it complete, current, and well-controlled, and the relationship between disbursement practices and possession of completed documentation. Assessment of the underlying management control process is the principal focus of the review. Responsibility for maintaining documentation standards lies with the relationship manager, regardless of whether administration of documentation is under the direct control of the line management unit.

Documentation Standards and Procedures

The specific requirements for each product and unit should be established by the line to reflect inherent risk characteristics. The most important aspects are:
- Legal—Standard forms approved by local counsel (deviations approved by counsel and the credit policy committee, where appropriate); local counsel designated, approved, and evaluated; guidelines for loans requiring legal review; and guidelines indicating minimum required documentation for each transaction.
Annex 1: Risk Asset Management Review

- **Transaction checklist and independent verification**—Each transaction must have a checklist of required documents, independent verification that documents were received prior to disbursement and were properly executed (for example, signature control, registration, stamp duties, and proper legal form), and evidence of adherence to conditions precedent.

- **Independent control and follow-up**—Expiry dates (insurance, guarantees, and UCC filings) and documentation exceptions at the time of disbursement and discovered later in subsequent reviews. Adherence to a rigid follow-up procedure will be closely reviewed.

- **Inspection**—Periodic verification (at least annually) of the existence and completeness of documents held, with sign-off by relationship manager. Inspection may be performed at the time of the annual review or, under some circumstances, done on an entire portfolio at one time, but it is the responsibility of each relationship manager. Notification (and periodic follow-up) of exceptions to highest applicable approving level.

**Adherence to Standards and Procedures**

Adherence is evaluated through the review of individual credits and examination of support systems, such as documentation control units. Suggestions for the reviewer include:

- Study last independent documentation review and/or previous risk asset review; follow up on selected comments or discrepancies to observe corrective action, independent, regular exception follow-up, and, if necessary, notification to the next higher level.
- Check latest OI inspections of documentation-related functions.
- Review formal and informal training programs for legal, regulatory, and documentation emphasis. What documentation handbooks or guidelines are on hand or needed?
- Test dual control, access to original documentation. Review tickler files for insurance and guarantee renewals, UCC filings, and the like.
- Review adherence to margin requirements for collateralized loans.
- Documentation completeness and adequacy must be confirmed during the independent documentation review and the annual review by the relationship manager.
- Completeness—Check completeness of required documents from credit application, credit file checklist, vault receipts, etc. Transmittal memoranda from relationship managers identifying lodged items and their degree of completeness may be available. Periodically updated “inventory checklists” may be used to ensure continuing completeness (inclusion of amendments, waivers, etc.). Check culling, maturity ticklers. Are documents well organized, easy to locate, and secure?

- Adequacy (credit/legal)—Few of us are lawyers; reviewers can only spot-check adequacy, given differences in local laws, regulations, etc. Emphasis should be on determining what the lending officer intended to accomplish and then evaluating the process by which the adequacy of documentation is ensured.

  — Spot-check key provisions of guarantees, collateral (type and perfection), subordination agreements, etc., to see that they conform to the basis upon which credit approvals were obtained. Loan structure (covenants and other terms/provisions) is discussed under “Credit Initiation and Analysis.”

  — Who has legal/physical access to collateral? Is collateral shared with differing classes of creditors? Are liens based on deferred filing in which action by other creditors can nullify the bank’s rights? Legal capacity to execute support documents and guarantees?

  — Have legal opinions from bank’s and borrower’s counsel been obtained?

  — Have all special legal requirements (for example, purpose statements for domestic loans secured by equity securities, and registration of guarantees for cross-border obligations) been met?

  — Have all institutional requirements (for example, sovereign immunity/legal jurisdiction for government credits) been met?

**Disbursement**

The review should:

- Review procedures and interview-related operations personnel to evaluate adherence and understanding.
- Establish whether disbursements are routinely made without proper documentation available.
- Determine whether waivers of requirements are frequent.
- Examine the effectiveness of ticklers to follow up on exceptions.
- Check for regular reports to seniors on exceptions, and determine whether exceptions are resolved.
Building Strong Management and Responding to Change

Credit/Risk Administration

Credit/risk administration focuses on "housekeeping": the credit support, control systems, and other practices necessary to manage the outstanding risk assets to normal repayment and to monitor business risks properly.

Many of the administrative functions may be performed by support areas not directly under the unit's control (for example, credit departments overseas). The review of individual credits is thus only a starting point in evaluating this process block. Notwithstanding the involvement of other departments, this section is reviewed, written, and rated from the standpoint that relationship managers and their superiors are the critical agents and have ultimate responsibility.

Credit Files. The quality of credit files is the responsibility of the relationship manager. Credit files should contain all the information necessary to reconstruct a credit and incorporate, by reference, all other files (for example, desk, departmental, industry, etc.). Credit files are institutional files. Regardless of what the relationship manager may choose to keep in a desk file, the credit file should be complete as the ultimate document in support of the extension of credit. The review should show whether the credit files are in order, culled, and complete. Desk files are not official files.

Beyond basic institutional requirements, group, departmental, or country standards may list other credit file requirements (for example, marketing forms, account profitability, and account plans). File format should be standard and easy to work with. Latest classified loan management reports (CLMRs) and classified credit memoranda (RAR 1) should also be included. When pertinent, files should contain term-loan summaries and covenant check-off sheets. Trade checkings, where appropriate, should be made regularly and recorded in the file. Files should also document regular contact with customers through pertinent call reports and correspondence, beyond the minimum requirements for annual revisions (for example, plant tours, visit by experts where appropriate, and senior coverage). For credits with margin limits, regular, independent evaluations of collateral should be evidenced.

Renewal/Review Procedures. Procedures should be in place to ensure timely reviews of credit lines, term loans, and collateral or support. Typically, this process involves a tickler/follow-up system with regular reporting to relationship managers and seniors on exceptions and overdue items.

Term-Loan Reviews. For each term loan, current summary of terms, updated covenant check-off lists, waivers of covenants, repayment schedule and tracking, compliance letters (from agent or borrower), analysis of actual financial results against forecasts, and implication of variances; proper reporting and analysis of any defaults or violations.

Periodic Line-Credit Reviews can be a substantive element of credit and business risk administration. Reviewers should comment on the content of such reviews under each process block.

Overdrafts, Line Excesses. Examine several reports on a random basis from the past few months. Procedures should ensure that no line excesses or overdrafts occur without proper credit approval. Excesses or overdrafts should be referred to the relationship manager for approval before disbursing the funds. Is there adequate follow-up control for verbal approvals and observance of approval limits for temporary overdrafts according to the "Rules Governing the Extension of Credit"? Trace the overdraft approval system for any overdrafts outstanding during the review. Determine whether hardcopy approvals are returned promptly by relationship managers and cross-checked against verbal approvals. How are verbal approvals documented? How long are overdrafts outstanding before being regularized? Are recurring overdrafts only approved but not resolved?

Past-Due Obligations (PDOs) and Interest Earned Not Collected (IENC). Tracking of amortization schedules should ensure proper accounting for any assets with past-due principal or interest. Loans must be placed on a cash basis whenever either principal or interest is past due 90 days or more. Loans with a III classification must also be placed on a cash basis. Review reporting of PDOs: Is it accurate and timely, and does it receive appropriate management attention?

Provisions and Write-offs. Bank policy requires immediate recognition of loss for assets with a IV or III classification with a subsequently mandated reserve. Reviewers should confirm that losses are recorded no later than the month following the month in which the loss was determined (either by management or by an examining authority).

Trustee and Agent Responsibilities. Review procedures for ensuring fulfillment of trusteeship or agency responsibilities.

MIS Reports. Are loan outstandings and unused commitments accurately recorded on periodic reports?
Problem Recognition

Portfolio. Problem recognition related primarily to the unit's ability to anticipate, detect, recognize the significance of, and report, as early as possible, potential problems with individual risk assets. A systematic, self-policing approach to continuous portfolio review should be in place in all units. The objective of any early warning system is to address problems for which adequate alternatives for action exist and to supplement relationship manager/unit judgment with additional opinions. Management's approach to resolving or correcting problems is discussed under "Remedial Management."

Process. Another aspect of problem recognition is the application of its principles to the unit's own credit process. Does management anticipate and recognize potential areas of process deterioration (turnover, organizational matrix, need for new procedures, etc.)? Does it acquire requisite skills (training and/or staff additions) before entering new markets or offering new products? The implementation of quarterly line process ratings for all process blocks is considered a useful tool for detecting process deterioration early.

Recognizing and Reporting Problems.

- Unit activities—Problem recognition is an anticipatory state of mind ("what if?") that should be evident in call memos, credit evaluations, and interviews with relationship managers. Is the unit characteristically reactive to, or surprised by, events? Has it recognized the potential risks inherent in the business and the specific transactions and planned for contingencies? Critical to this concept is proper diagnosis—that is, rather than recognizing the symptoms that indicate the existence of a problem (but are not themselves the problem), the unit should find the causes of a problem.

- Line-conducted audits—Groups, divisions, etc., may conduct their own internal audits of lower-level units. Ideally, such audits should be conducted by officers experienced in the particular business but from another unit. RAR evaluates whether the nature and frequency of the audits are compatible with the unit's business, and assesses the quality of the line audit work.

- Portfolio review—A structured system of top-down rapid portfolio reviews to monitor the impact of changes in the economic/regulatory environment on individual accounts is especially important in rapidly changing settings.

- Periodic ranking of portfolio—While not mandatory, ranking or rating all credits by degree of risk (for example, A, B, C), on a quarterly basis or as desirable, can be an excellent way to detect potential credit deterioration and to document an effective periodic self-audit process.

- Watchlist—Material changes or issues with uncertain credit implications may warrant a watchlist to supplement the classification system. If the unit uses a watchlist, criteria should be defined, and the system actively used and updated (at least quarterly). Reasons for watchlisting should be documented, and a related action plan may be appropriate if specific remedial action is indicated. Units should establish a maximum period for carrying a name on the watchlist, during which time it must be either taken off the list or classified. Watchlist procedures normally tie into the ranking/rating of individual credits described earlier.

- Classification—Intrinsic to recognition is the timely classification and reporting of favorable or adverse changes in the status of risk asset quality. Identifying and managing a problem without reporting it to higher levels of management, etc., is unacceptable.

Line officers should initiate new or changed classification as the situation warrants. Classifications should be at the proper level. Particular attention should be given to "double jumps" in classification or any effort to "manage" loan classifications and write-offs. Determine whether line-originated classifications were generated by relationship managers and unit heads ("bottom up") or by senior management ("top down").

Reviewers should evaluate the relationship of classifications to the unit's early warning systems. Are they timely as a matter of practice or prompted by notification of a review? While line-initiated classifications during a risk asset review are permitted, their nature and circumstances will be taken into consideration.

- Credit losses—As noted under "Credit/Risk Administration," when a loss has been determined, the amount is immediately to be written off or reserved. Any violation of this policy should be reported to the division executive.

- Potential conflicts of interest—Any information on potential conflicts of interest created by trustee or agency fiduciary responsibilities that were disclosed in the credit initiation phase should be updated at least annually.

- Past-due obligations and accounts receivable—These assets are to be reviewed regularly as early
warning indicators, and prompt follow-ups should be made to initiate corrective action.

* Credits approved by other units—The same self-policing and early warning process should be apparent for these credits, with timely notification to the control unit for resolution.

RECOGNITION AND DOCUMENTATION OF PROCESS PROBLEMS. Systematic management attention to credit/risk process indicators will reveal most developing problems. Examples include past-due line revisions, backlog of statement spreads, slippage in call program, unresolved documentation discrepancies, sloppy credit files, gaps in the credit training program, and an obsolete account assignment and back-up list.

The reviewers should confirm that unit management tracks pertinent production, quality, and control indicators (that is, has the wherewithal to recognize developing process problems), and that problems, once recognized, are documented and addressed.

Policy, Practice, and Procedure

Credit process is reviewed against institutional standards, which can take the form of corporate standards (“Rules Governing the Extension of Credit”), organizational standards (line manuals and group policy statements), and standards of performance in other units. Regulatory compliance is an important component in this process block.

The following considerations provide guidelines for a review of this process block.

* Are corporate and organizational credit policy and procedure manuals available, kept up to date, and generally understood by line officers? Does the unit adhere to them?

* Are formal unit procedures needed for its business and market? If they exist, are the procedures documented (manuals and policy statements), adequate, approved by the appropriate level of senior management, kept up to date, widely distributed, and understood? Do they reflect any restrictive local lending practices (for example, local legal lending limit and usury)? Are there any gaps in the unit’s local procedures or aspects of the credit process that need formalization?

* Are exceptions systematic or isolated instances? For example, does local procedure allow documentary exceptions at disbursement to be approved by officers junior to a senior credit officer, or is any instance of such an approval just an isolated case? Do systematic deviations from institutional standards reflect a local procedure that is documented and properly approved by higher levels of management? Wherever a unit feels deviations from the requirements of the credit policy manual are desirable, written approval for the proposed procedure should be obtained from the appropriate credit policy member. Summarize any procedural problems noted during the review.

* Does the unit work constructively with credit policy and specialized industry units not only when required but when consultation would prove beneficial? Or does it adopt an adversarial role or defensive posture with such consulting authorities in its efforts to achieve market goals?

* Does the unit properly secure confidential institutional customer materials?

* Is the unit in compliance with U.S. (NBX and FRB) and foreign government regulations? Review with management any outstanding regulatory issues.

* Legal/regulatory compliance—Overseas branches and subsidiaries/affiliates of U.S. banks operate under both U.S. and local law. These laws, which relate to funding, lending, and basic business activities, are complex and at times conflicting.

* Government lending/legal lending limit—For legal-limit purposes, the comptroller of the currency combines all loans to a particular government, its agencies, and entities unless the borrowing entity has independent financial capacity to service its debt (“means test”), and the proceeds of a loan are made available to the borrowing entity for its general business, not for utilization by other government entities (“purpose test”). Be alert to legal lending-limit regulations and approval requirements.

Remedial Management

The management of risks and uncertainties associated with problem credits requires a different and more intense approach than under “Normal Management.” The success or failure of specific remedial programs is determined through the review of the classified credits themselves. Remedial results, whether with credits or process problems, are the main thrust of review and rating in this section. In addition, these remedial management standards are to be applied to remedial requirements associated with correction or to identified credit process problems within the unit.
POrmoLo. The review of a unit's remedial management should consider the following:

- **Responsibility structure**—Responsibilities are assigned so as to make best use of available talent in the unit and elsewhere in the bank when appropriate. They are clear and detailed (particularly when coordination or cooperation with others is required) and are realistic in terms of the severity of the problem and the unit's priorities. Confirm that officers assigned to specific problems are aware of their responsibilities and are competent to handle them. Are the relevant levels of management actively involved in the structure?

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- **Documentation review**—The unit reviews loan documentation of newly classified credits. Such reviews should be either by the relationship management or counsel, depending upon circumstances, and be in addition to the periodic review.

- **Action plans and deadlines**—Classified loan management reports (CLMRs), credit applications, and related credit memoranda document a clear strategy to resolve the identified credit problems. Alternate strategies and attendant risks are anticipated and documented. Intermediate and final deadlines, performance objectives, or other suitable benchmarks are incorporated in the plan in order to permit measurement of progress and the timely implementation of alternate plans. CLMRs are results-oriented, and they report actions taken, with results compared with previous targets (particularly as circumstances change and new targets are established).

- **Follow-up**—Review remedial action programs that were established either at the last risk asset review, at the time of RAR 1 submission, or through the CLMR process and evaluate management tracking/follow-up and results achieved. Unit response to problems should be fast. Failure to achieve targets or benchmarks is to be explained, along with decisions about alternative plans. Effective involvement of unit and higher levels of management must be evident. Relationships with other creditors are also a key consideration in evaluating this process block.

- **Results/recoveries**—Differentiate between the impact of environmental factors and unit actions in realizing (or failing to realize) objectives. While both may be considerations in the plan, evaluate their respective contributions (expected/unexpected). Remedial management should be action/results-oriented (reduced classifications, cash basis loans and write-offs, and increased recoveries). Evaluation of this block should not confuse activity with progress or fortuitous circumstances with planned actions.

The unit's efforts to recover realized losses must be evaluated in terms of the quality and relevance of the recovery plans. For partial write-offs, recovery plans should be part of the current CLMR. Where the entire balance has been written off, the credit file should contain an up-to-date action plan for the recovery or, when listed as "abandoned," an abandonment certificate.

**PROCESS.** The portfolio principles apply equally well to the unit's correction of its process problems.

- **Similar documented action plans with final deadlines and intermediate check points should be established for process gaps or problems. Sign-offs by other affected matrix areas help accountability and aid subsequent tracking. Remedial programs for process deficiencies should incorporate suitable management information indicators to allow appraisal or progress.**

- **RAR reports will address portfolio and process remedial action separately.**

**Organization and Staffing**

The risk management process is, by definition, people-driven, and a unit's organizational structure and the competence and experience of its personnel are critical. Judgment of this process should reflect the relationship between organization and staffing blocks and the other process blocks. There should be consistency between assessment of the process and of the people who create it (that is, process ratings should relate to ratings on organization and staffing, and vice versa).

Four specific blocks of organization and staffing are reviewed and rated separately:

- **Organization and deployment**
- **Staffing adequacy**
- **Staff continuity**
- **Coaching and training.**

**Organization and Deployment:**

- **Responsibilities**—Are they defined, assigned, understood, accepted, and smoothly carried out? Are accounts, products, process, and remedial management functions assigned in writing and kept current? Do relationship back-up systems work? Are communication and overlap between functions encouraged to ensure coverage of all responsibilities? Do informal and formal organizational structures match, and are observed functions and responsibilities consistent with job descriptions? Is the supervisory span of control adequate?
• **Matrix**—The unit's external organizational relationships are equally important. How effectively does it coordinate and cooperate with support departments, other units, specialized industry initials, and industry or trade groups? Does the organization suffer from a lack of cooperation or information from other units, and what has the unit done to manage resolution of such deficiencies? A **useful test**: How well-informed are unit officers on the activities, people, and objectives of other organizations that have an impact on the business of the unit?

• **Deployment**—Is the best use of available resources evidenced? Are complex or classified accounts assigned to the most qualified officers? Do account loads reflect balance, and are they tailored to the skill base?

**Staffing Adequacy.** Staffing adequacy must be evaluated against the unit's target market, business strategy, and the credit/operational complexity of its accounts. Some factors to consider include:

- **Staffing level**—Are sufficient personnel on hand to meet the day-to-day requirements of the unit's business? Do account loads conform to group or divisional guidelines, if any?
- **Experience**—Is there conformity in general experience and credit training with other units in corresponding businesses or markets?
- **Expertise**—Is there specific staff experience in the unit's business compared with the need for specialized expertise? The more industry or technical knowledge required, the more important becomes the specific individual and collective experience of the unit.
- **Marketing strategy**—Is rapid expansion of accounts and risk assets anticipated through active marketing? Is the unit planning to maintain current business levels because of environmental conditions? Are problem credits expected to increase in number and complexity? Given the delays in implementing staff changes, it is important that the unit demonstrate good forward planning of personnel needs.

Do not confuse adequacy with deployment. Adequacy pertains to whether or not enough people and experience are on hand. Deployment pertains to how effectively available people and experience are utilized.

**Staff Continuity**

Staff continuity refers to changes both in unit personnel and in account assignments. Change in itself is not necessarily bad, yet continuity of industry/market/customer experience is a key objective of successful unit management. Account continuity is determined by reviewing past lists of account assignments and reviewing the credit files. The effect of people and account changes—good or bad—is best measured by the resultant process.

Were the changes planned/unplanned, controlled/uncontrolled, etc.? Did the unit adapt effectively? Have competitive market pressures been effectively anticipated? Have contingencies been foreseen and plans implemented (for example, are account and other assignment backups in place and working)?

**Coaching and Training**

**Coaching.** On-the-job, day-to-day coaching by unit seniors through direction, example, regular meetings, and performance appraisal/feedback sessions represents the most important form of training. A **useful test**: How effectively do seniors support, understand, and reinforce the key objectives and teachings of formal programs and the standard related to each process block?

Evidence of active day-to-day coaching should be noted from the file review and documented in the credit approval process. Who is doing the coaching and how effective is it? Is the credit approval process used as an opportunity to coach? At what levels and how regularly? Do goals include credit/risk management, and do performance appraisals related to this operate effectively? For example, do relationship managers receive periodic feedback on credit/risk management goals?

**Training.** The unit should have implemented and documented a formal program of courses, seminars, and skill-broadening assignments with planned dates for all relationship managers and trainees. The training program should be consistent with the skills base required by the unit's market objectives and strategies.

Management of training should also encompass an evaluation of training results, especially their relevance to the unit's business mission. Are the tools developed in the training sessions implemented and endorsed in practice back on the job?

**Process Management Ratings**

Risk management is not a superficial activity, nor does it occur in a vacuum. Working together with line management, the reviewer endeavors to identify risk and to minimize and prevent loss where
possible. Ratings are tied to these objectives. As such, they represent an implied measurement of actual and potential loss (for example, write-offs, provisions, cash basis assets, and opportunity costs). Thus, they are something more than a report card.

Properly done, process ratings represent a researched and reasoned indication of the substantive status and direction of risk management performance. By extension, ratings go beyond the form presented by file contents to evaluate what is really happening in terms of risk and what management is doing on a day-to-day basis to identify and control risk. This is not said to underrate the importance of correct form, but simply to recognize that considerably more than form is assessed and measured.

Notes

1. Such a department may have any one of a number of names: loan review, risk asset review, credit audit, and credit review.
Appendix 2.
Asset and Liability Management
David Scott

Interest-rate risk is a consequence of financial intermediation. The manner in which a bank structures its assets and liabilities will determine its interest-rate risk position. The most common example is that of a bank that funds longer-term fixed-rate assets with shorter-term or variable-rate liabilities. Since yield curves tend to have an upward slope much of the time, with short-term rates lower than long-term rates, such banks make profits by borrowing funds in short-term markets and lending them in long-term markets.

With this strategy, the bank has assumed interest-rate risk. If short-term rates rise, the bank's cost of funds will increase, while the rates earned on its longer-term assets will remain relatively fixed. In certain circumstances, the spread between asset yields and liability costs can become negative. Even if the spread remains positive, the bank's net interest income may be insufficient to cover its overhead, creating losses that erode capital.

Whether a given interest-rate risk position actually leads to problems for a bank depends on movements in interest rates. If the yield curve were to remain upward sloping forever and the interest rate did not change, the strategy of borrowing short and lending long would always be a source of risk-free profits. But the yield curve will not always be upward sloping, and interest rates will change. It is the effect of potential rate changes in the context of a bank's interest-rate risk position that is of concern to financial management.

The primary determinant of the interest-rate risk position in a bank is the extent to which assets and liabilities are "mismatched." Mismatching refers to the timing with which interest rates on assets and liabilities can be changed.

In reality, all banks exhibit some degree of mismatching. Therefore, all banks exhibit interest-rate risk and have an exposure to interest-rate changes. In countries with market-determined rates, A/L managers are confronted daily with the effects of rate changes. But it is important to recognize that interest-rate risk also exists in countries with administered rates, even when those rates have remained fixed for long periods. Any number of factors can lead to a change in those rates, and such a change will affect the financial condition of the institutions operating in that market, depending on their interest-rate risk position. Often, the consequences of rate changes in such countries can be more pronounced, since bank managers have had little previous experience in managing interest-rate risk.

Good A/L managers can use several risk measurement techniques in an attempt to assess how future earnings might be affected by potential interest-rate movements. Each measurement technique is based on simplifying assumptions, and thus each technique has its limitations. For this reason, even in the best case, substantial judgment is required to interpret the risk measures.

Certain basic information forms the foundation of all commonly used measurement techniques. Fundamental to interest-rate risk measurement is timely and accurate information on the interest-rate repricing dates of the bank's assets and liabilities. Knowing when the interest rates on all assets and liabilities can be changed is critical to determining the bank's interest-rate risk position.

The most commonly used measurement technique is a simple report that sets out this basic information. It depicts the different volumes of assets and liabilities whose interest rates can be reset within various future time periods. This report is commonly referred to as an "interest-rate gap report" (for the "gaps" in the timing of rate resettings on assets and liabilities). Netting assets against liabilities in the various future time periods produces the gap for each period. By multiplying a hypothetical rate change by the size of the gap, management obtains a measure of the sensitivity of future net interest income over the future time period corresponding to the gap.

Gap reports are typically used to estimate po-
tential changes in net interest income over the near term, generally the next few quarters or next year. But gap reports tend to be fairly imprecise and sometimes misleading. Simplicity models project future net interest income under a variety of different interest-rate scenarios. They need not be highly complex or expensive. Simple but effective models have been developed to run on personal computers. In general, the models use the same type of information found in gap reports (the existing rate-resetting characteristics of the bank's books). But, in addition, they afford the ability to use information on the current interest rates associated with existing assets and liabilities. Starting with this information on repricing dates and existing rates earned and paid, and adding assumptions about future interest rates (and thus about the rates to which assets and liabilities will reset in the future), the models project future interest income and expense under a variety of different future interest-rate scenarios. The result can be a fairly good measure of the earnings sensitivity of the existing structure of the bank.

Regardless of the type of measurement technique used, an important factor in a bank's ability to assess interest-rate risk is the timeliness and accuracy of the information upon which the measurement process is based. The most important information relates to the interest-rate repricing dates associated with existing assets and liabilities, and, for more sophisticated analyses, the current interest-rate earned on the bank's assets and paid on its liabilities. Typically, this information is obtained from the automated or manual accounting and processing systems used by banks to track their various assets and liabilities. Banks often use a variety of such systems, usually acquired at different times and having varying capacities to produce the necessary information. As a practical matter, many banks will not readily have the basic information necessary to complete a gap report, and fewer will have the information required for a good simulation model. For these reasons, the first step and highest priority for most banks in assessing interest-rate risk is to improve the timeliness, accuracy, and completeness of the required basic information.

Managing Interest-Rate Risk

Interest-rate risk management is a comprehensive process in which the contribution to the risk position of all significant assets and liabilities must be considered. Interest-rate risk management can be thought of in terms of the different types of positions that might exist in the bank. For this purpose, positions are categorized here as strategic, tactical, and trading.

Strategic Positions typically arise from a bank's lending and deposit-taking activities. These positions can be thought of as the natural positions inherent in most banks, often reflecting the previously noted tendency for banks to lend long and borrow short. Strategic positions tend to remain rather stable, and thus require less active management. Alterations in strategic positions are usually accomplished by conscious adjustment of the loan and deposit mix, often by altering the pricing and/or the marketing strategy in an effort to increase or decrease their volume or to modify their repricing dates.

Tactical Positions arise primarily from a bank's investment and funding activities in the money, capital, and perhaps derivative (mostly futures and swaps) markets. These positions are characteristic of many securities firms, but also exist to varying degrees in banks. Since these positions usually involve instruments with liquid primary and secondary markets, tactical positions can be adjusted rapidly in response to unexpected rate movements or changed expectations. Thus, tactical positions often reflect conscious risk taking in anticipation of medium-term rate movements (from a week up to several months). Banks also use tactical positions to offset undesired strategic positions until the product mix can be adjusted. Tactical positions require daily management.

Trading Positions are taken in anticipation of very short-term rate movements (from a few minutes to a day or two). Although very short term, trading positions can be quite large. In order to run large positions, the trader must be assured that the position can be closed in a matter of minutes. For this reason, trading positions are usually limited to money and capital market instruments with high secondary market liquidity, and to active derivative markets. Trading positions must be managed constantly, and typically must either be closed or be reduced to minimal levels at the end of the business day. Banks in many developing countries primarily exhibit the type of positions categorized here as strategic. Interest-rate risk arises from their lending and deposit-taking activities. Few money and capital market instruments exist, precluding tactical position taking and trading. At the same time, the lack of money and capital market instruments
Building Strong Management and Responding to Change

hampers the ability of A/L managers in developing countries to make tactical adjustments to the more permanent strategic position. But this lack of agility is often mitigated by the short-term nature of the strategic positions in many such banks, whose lending is predominately either short-term or at floating rates of interest.

Regardless of the types of positions taken, A/L managers will have ultimate responsibility for all interest-rate risk in the institution. They must have a clear understanding of the amount of risk that is acceptable to senior management and the board of directors. Ordinarily, the size and nature of acceptable strategic positions is approved by senior management and reviewed by them periodically in the context of long-term business plans and economic trends. In larger institutions operating in more developed financial systems, senior management will grant A/L managers explicit authority to take tactical positions within specified limits. Tactical positioning is then conducted by A/L managers based on their medium-term interest-rate projections. In those few institutions with trading operations, senior management and A/L managers will establish explicit position and stop-loss limits for traders running trading positions. Adherence by the traders to these limits is routinely monitored by the A/L managers.

Liquidity

Liquidity is the ability to meet anticipated and contingent cash needs. Cash needs arise from deposit withdrawals, liability maturities, and loan disbursements (new loans and the drawdown of outstanding lending commitments). Cash needs are met by increases in deposits and borrowings, loan repayments, investment maturities, and the sale of assets.

Inadequate liquidity can lead to unexpected cash shortfalls that must be covered at inordinate costs, thus reducing profitability. In the worst case, inadequate liquidity can lead to the liquidity insolvency of the institution. On the other hand, excessive liquidity can lead to low asset yields and contribute to poor earnings performance.

Maintaining adequate liquidity often depends on the market's perception of the financial strength of a bank. If its condition is seen as deteriorating, usually because of significant loan losses, extraordinary liquidity demands will arise. Depositors will withdraw deposits, or not renew them when they mature. A bank will find it more expensive to raise deposits and issue money market liabilities, exacerbating earnings problems. The capacity of the bank to raise funds in the money markets, at any cost, will eventually decline as potential investors reduce or eliminate their lines of credit available to the institution. Compounding the reduced availability and increased cost of funding, banks with perceived problems often experience a surge in drawdowns under outstanding loan commitments. Borrowers respond to the bank's potential failure by drawing against their credit lines to ensure that they have the funds they might need in the future. They also drawdown lines as a potential offset to their deposits with the bank that cannot be readily withdrawn. Thus, a deterioration in the market's perception of the bank can have real consequences for its liquidity position.

Measuring Liquidity

Liquidity measurement systems must quantify known and potential cash needs. Therefore, the measurement of liquidity must be based on a cash flow analysis designed to identify the timing and size of potential funding requirements. Liquidity cannot be measured adequately by computing balance-sheet ratios; such ratios afford only an incomplete measure of liquidity.

A typical liquidity report provides details on all cash flows associated with existing assets and liabilities. Since some instruments do not have contractual maturities, their cash flows are estimated in part on the basis of an analysis of past trends. Similarly, estimates of cash flows available from the loan portfolio are made in recognition that many loans are rolled over at maturity. Management estimates potential loan and deposit growth, taking into consideration the potential use of unfunded loans commitments and guarantees, as well as seasonal trends in loan and deposit volumes. A good measurement system will depict a base case and perhaps several worst-case funding scenarios. Under at least one worst-case scenario, A/L managers will estimate the impact of a sudden deterioration in the quality of a bank's loan portfolio on the market's perception of the bank. In addition to estimating the consequences of adverse publicity, management will adjust downward their estimates of the cash flows available from the troubled loans, whose repayment now appears to be protracted.

The quality of the measurement of liquidity depends on the quality of the timeliness of information on maturities of existing assets and liabilities and on the quality of the bank's analyses of
Appendix 2: Asset and Liability Management

past and projected loan and deposit trends. For many banks, the first step in improving liquidity management should be to ensure the accuracy and timeliness of maturity information available from the bank’s accounting and processing systems. In addition, analyses of past loan and deposit trends should be performed and well-researched estimates of future trends should be developed.

Managing Liquidity

Liquidity is managed to ensure that a bank maintains the required level of reserves at the central bank and sufficient liquidity for expected and contingent needs. The overriding goal of liquidity management is to ensure that cash needs can always be met at reasonable cost. As noted, cash needs can be met by the maturity or sale of assets or by the acquisition of deposits or additional funding from the money markets. The process of liquidity management can be categorized correspondingly as asset management and as liability management.

As a general rule, smaller banks and banks operating in less developed markets rely on asset management. Such banks have limited ability to raise money market funding and cannot rely on the generation of additional deposits to meet sudden, unexpected cash flow shortfalls. The management of asset liquidity focuses on the asset maturity structure. The asset maturity structure should reflect the maturity structure of deposits and borrowings, as well as estimates of loan growth, so that, to the extent possible, cash outflows can be met by cash inflows from maturing assets. For unexpected needs, a stock of high-quality liquid assets is maintained. The instruments used for this purpose should be those for which an active secondary market exists, providing assurance that the instruments can readily be sold or otherwise converted to cash. In addition, banks relying on asset management will often arrange committed lines of credit from other institutions as a backup source of funding for extreme emergencies.

Larger banks with greater market access tend to rely more on liability management. They do so in order to minimize their holdings of high-quality but lower-yielding liquid assets. In times of need, these banks raise additional funding in large volumes, primarily through the money markets. Managing liability liquidity involves primarily the expansion, diversification, and quantification of sources of additional funding. Expanding the number of funds providers familiar with the bank and willing to invest in its money market instruments serves to increase the potential that funding will be available when required. Diversification among the types of funds providers stabilizes funding capacity and minimizes funding concentrations that would leave a bank vulnerable to problems incurred by a major funds provider. Quantification of potential money market funding is an integral part of measuring liquidity in such institutions. Banks in developing countries that rely on liability management must have an acute awareness of the potential fragility of both the money markets and the financial condition of the major funds providers in those markets.

As with interest-rate risk, liquidity must be managed for each currency within which the institution operates. In the domestic currency, the institution will often have the ability to tap the central bank to meet severe unexpected liquidity demands, either by pledging eligible collateral or by borrowing on an unsecured basis. This lender-of-last-resort function of the central bank rarely extends to funding in foreign currencies. If the local currency is not readily convertible, more conservative liquidity management practices should be used for foreign currencies.

As a practical matter, it is a relatively routine process to manage liquidity in a healthy bank operating in a stable environment. More challenging is managing liquidity in an unstable environment. To prepare for the liquidity consequences of such an environment, A/L managers develop contingency plans. Contingency plans contemplate worst-case scenarios and set forth strategies to deal with such events.

In addition to developing contingency plans, A/L managers can take preventive action to bolster liquidity when a bank is likely to encounter financial difficulties. For example, liability maturities can be extended to reduce potential cash needs over the near term. But in order to take such action, A/L managers must be fully informed about the condition of the bank. This usually means understanding the quality of the loan portfolio. However, it is often the case that A/L managers become aware of serious loan-related difficulties in a bank only days or even hours before knowledge of those problems becomes widespread. Managers responsible for the loan portfolio act to obscure deteriorating credit quality until it reaches a critical point. Good internal communication is critical, because A/L managers can use well the period between the time problems are identified internally and the time they become known externally.
6. The existence of explicit deposit insurance will mitigate to some extent the potential loss of deposits. But experience indicates that even insured funds will often be withdrawn.

7. It is necessary to recognize that required reserves are not considered to be a routine source of liquidity.

8. Virtually all banks relied on asset management until the early 1960s.

9. For example, the asset might be pledged as collateral for a loan.

10. Efforts to ensure the stability of funding should recognize that deposits from the public tend to be more stable than deposits from large investors and corporations and that deposits and money market funding from customers that have other relationships with the institution tend to be more stable than those from customers that invest on the basis of the interest rates alone.

11. Even when the currency is readily convertible, in extreme circumstances a bank finds it difficult to locate counterparts with whom it can transact foreign-exchange transactions. Potential counterparts may be unwilling to accept the settlement risk involved in the transactions.

12. Instability can arise from macroeconomic or local market conditions. Instability also can arise from technical deficiencies, such as a poorly functioning and inefficient payments system. More serious instability can arise from financial problems within the bank itself. In the most difficult situation, the instability arises both from the bank and from the external environment, a circumstance not uncommon in developing countries.
This appendix addresses the risks inherent in assets, liabilities, capital, and off-balance-sheet items denominated in foreign currencies. In banks in developing countries, these foreign currency positions usually arise as part of the banks' activities in providing services to local or foreign customers and to the government. In some banks, such positions may arise from trading activities in currencies or foreign-currency-denominated financial instruments. Banks' foreign currency positions give rise to several financial risks, including exchange-rate risk, interest-rate risk, credit risk, and country risk. In addition, since these position produce foreign currency cash flows, liquidity in the foreign currency must be managed. The management of foreign-exchange positions is integral to the overall process of asset and liability (A/L) management.

Definitions

An open position exists when assets in a particular currency do not equal liabilities in that currency. When assets exceed liabilities, a net long position exists. When liabilities exceed assets, a net short position exists.

A foreign-exchange contract is an agreement to exchange foreign currencies at a specified exchange rate and at a specified future time. Spot foreign-exchange contracts are transacted at the spot exchange rate and call for the exchange of currencies on a value date generally not more than one week after the contract date, the date on which the counterparts agree on the contract. Longer-term contracts are referred to as forward foreign-exchange contracts, are transacted at a forward exchange rate, and may call for the exchange of currencies up to a year or more in the future.

Exchange-Rate Risk

Description

Exchange-rate risk is the risk of loss due to changes in the value of foreign currencies in terms of a bank's domestic currency. The potential for loss arises from the process of revaluing foreign currency positions in domestic currency terms. When banks have an open position in a foreign currency (where assets in the currency do not equal liabilities in that currency), the process of revaluation will normally create a gain or loss. The gain or loss is the difference between the aggregate change in the domestic currency equivalent value of assets denominated in the foreign currency and the aggregate change in the value of liabilities and capital denominated in that currency.

Whether the bank incurs a gain or a loss depends on both the direction of the exchange rate change and whether the bank is net long or net short the foreign currency. When the bank has a net long position in the currency, revaluation will produce a gain if the value of the currency increases and a loss if the value of the currency decreases. Conversely, a net short position will produce a loss if the foreign currency's value increases and a gain if it decreases. Whether the gain or loss that the bank incurs must be recognized in its books depends upon accounting rules.

Accounting treatment of gains or losses arising from the revaluations can vary. Revaluations of balance-sheet positions are usually considered "realized" gains or losses, while revaluations of off-balance-sheet positions are considered "unrealized." A typical conservative accounting regime requires that realized gains and losses, and unrealized losses, be reflected in earnings, and thus capi-
Building Strong Management and Responding to Change

tal. Other accounting regimes require that all real-
ized and unrealized gains and losses be reflected in earnings. Some accounting regimes permit the
deferral of unrealized gains and losses. In these in-
tances, to the extent that unrealized losses are
dered, earnings and capital can be overstated.

Accounting rules for the revaluation of foreign
currency positions normally require that balance-
sheet assets, liabilities, and capital be revalued
using the current spot exchange rate. For items
revalued at the spot rate, changes in their domes-
tic currency equivalent value are a reflection solely
of exchange-rate movements. Off-balance-sheet
exchange-rate contracts, on the other hand, are
often revalued using current forward exchange
rates corresponding to the maturity of the item
being revalued. For these instruments, changes in
their domestic currency equivalent value reflect
not only exchange-rate movements, but also move-
ments in the interest rates in the domestic and
foreign currencies.7

Regardless of the methodology and treatment
of revaluation gains and losses for accounting pur-
poses, bank managers and bank supervisors must
be concerned with the consequences of poten-
tial exchange-rate movements on the domestic cur-
rency equivalent value of all foreign currency po-
positions. More specifically, it should be the respon-
sibility of bank management to measure and limit
potential foreign currency losses, whether or not
such losses are required to be recognized under
the relevant accounting regime.

Measuring and Limiting Exchange-Rate Risk

A common approach for measuring and limiting
exchange-rate risk is to limit the size of the open
positions in each currency as of the close of busi-
ess each day.8 Net open positions then may be
expressed as a percentage of the bank’s capital,
assets, or some other benchmark. Limits are estab-
lished for either the nominal size of the position or
the size of the percentage. Managers using this
approach attempt to control exchange-rate risk by
using the size of net open positions as a proxy for
the potential loss that such a position might pro-
duce.

This approach can be enhanced by directly es-
timating the potential loss that an open position
might produce. In effect, this makes explicit what
is implicit in the approach described above; it is the
potential for losses that management is inter-
ested in limiting. To estimate loss potential di-
rectly, management determines the size of the loss
that would be incurred if the exchange rate moved
against the bank’s open position. To make this
estimate, management makes one or several as-
sumptions about potential adverse exchange-rate
movements, and computes the loss that would be
incurred by revaluing the bank’s open position at
this hypothetical exchange rate. The size of the
potential loss produced in this manner is sub-
jected to a limit. The limit might be expressed in
terms of the nominal amount of the loss, or in
terms of a certain percentage of a benchmark, such
as projected earnings or total capital. Normally,
management’s principal goal is to provide strong
assurance that foreign-exchange losses will not
substantively diminish the total earnings of the
bank.

In estimating potential losses directly, it is im-
portant that the adverse rate change used in such
calculations be a conservative estimate of poten-
tial future exchange-rate movements. It is not suf-
ficient to base limits on “likely” or “probable” ex-
change-rate movements. Often, management will
wish to satisfy themselves that the adverse rate
change reflects, with high probability, a worst-
case scenario. A determination of an appropriaten-
ly conservative adverse rate change depends on the
characteristics of the domestic and foreign curren-
cies. For banks based in countries with a freely
convertible domestic currency, and where the bank
has positions in hard foreign currencies, conserva-
tive estimates of an adverse rate change can be
derived from past exchange-rate movements. For
banks based in countries where exchange rates are
subject to substantive government intervention,
conservative estimates of a potential exchange-rate
change must consider that the exchange rate can
undergo rapid and sizable adjustment. At a mini-
mum, a change from the controlled rate to a mar-
ket rate must be considered.

Managers of banks based in developing coun-
tries may manage foreign-exchange-rate risk by
 treating a group of hard foreign currencies as a
single currency. The rationale is that the exposure
arising from a position involving one hard cur-
rency against another (for example, an SFR liabil-
ity funding a DM asset) is generally much less
than the exposure arising from a position involv-
ing the domestic and a hard currency (particularly
a hard currency liability funding a domestic cur-
rency asset). In practice, this procedure simplifies
the management of foreign currency positions, but
it must be recognized that it fails to capture the
risk arising from cross positions in hard curren-
cies.
Interest-Rate Risk and Liquidity

Description

Foreign currency positions almost always give rise to interest-rate risk. Even where it is the bank's policy not to run an open position in a foreign currency, it can often be exposed to interest-rate risk in the currency. Since interest-rate risk arises from the "mismatching" of the timing with which interest rates on assets and liabilities can be changed, interest-rate risk can be avoided only when all foreign currency assets and liabilities precisely offset each other, both in amount and interest-rate reset date. Usually this is encountered only when the bank conducts limited foreign-exchange transactions, and is obligated by policy to hedge each new transaction precisely, often through a correspondent bank.

Similarly, foreign currency positions often give rise to cash flow imbalances, requiring that liquidity in the currency be managed. Liquidity management can be substantially complicated when the local currency is not freely convertible, potentially impeding management's ability to engage in spot and forward foreign-exchange transactions to acquire foreign currency for liquidity purposes. In such instances, cash flow mismatches should be minimized.

Measuring and Limiting Interest-Rate Risk and Liquidity Imbalances

Managers should at least use forward GAP reports to assess and control the bank's exposure to interest-rate risk and to manage liquidity in foreign currencies. (See appendix 2, "Asset and Liability Management," for a description of these reports and more sophisticated systems, as well as a detailed discussion of interest-rate risk and liquidity management.)

Credit Risk

Description

Foreign currency positions often take the form of off-balance-sheet contracts, the most common of which is the forward foreign-exchange contract. Even though such off-balance-sheet contracts are not intended to be formal extensions of credit, the bank nonetheless has a credit exposure to the failure of the counterpart to perform under the terms of the contract. The nature of the exposure differs according to whether the counterpart fails to perform at the maturity of the contract, or prior to maturity.

The risk of default by the counterpart at the maturity of an off-balance-sheet contract is known as "settlement risk." It arises at the moment that payments in different currencies are to be exchanged by the counterparts, and is the risk that the counterpart fails to make payment to the bank after the bank has made payment to the counterpart. Allowing for differences in time zones and hours of operation, settlement risk is usually outstanding only for several hours, the time between corresponding outgoing and incoming payments. But the size of a potential loss can be large; in the extreme, the full amount of the payment can be lost. Usually, the failure of the counterpart to make a required payment is of a temporary nature. In this case, the bank has made, in effect, an involuntary short-term loan to the counterpart.

Default on foreign-exchange contracts occurs more often prior to settlement. The potential loss is the cost of replacing the defaulted contract with a new contract with terms identical to the defaulted contract. Whether such replacement will lead to a gain or a loss to the bank depends on market movements subsequent to the date of the original contract. Normally, the counterpart will default only on a contract in which the bank has a market value gain. Such contracts represent a loss to the counterpart should it continue to perform under the terms of the contract. The bank's loss is the value that it would have realized had the counterpart continued to perform. It is not appropriate to view this loss only as an "opportunity loss," since the lost value was likely relied on to offset a loss on another contract and, in many instances, has already been reflected in earnings.

Measuring and Limiting Credit Risk

The amount of credit exposure at the settlement of a contract is the face amount of the payment to be made by the bank. The amount of credit exposure that exists prior to settlement, if any, depends on movements in currency rates subsequent to entering into the contract. If the rate moves in favor of the bank, it generates a credit exposure. If the rate moves against the bank's position, so that the contract represents a loss to the bank, it has no credit exposure. Prior to entering into an off-balance-sheet exchange-rate contract with a counterpart, managers must estimate the potential credit exposure that may develop over the life of the contract.
Generally, the longer the maturity of the contract and the more volatile the exchange rate, the greater the potential credit exposure relative to the face amount of the contract.

To limit credit risk, the bank should establish separate settlement limits and volume limits for each counterpart with which the bank engages in off-balance-sheet foreign-exchange-rate contracts. The limits should be an allocation of the total credit line of the customer within the bank, and should be established by the credit department, not the foreign exchange department. Settlement limits should be set to reflect the fact that settlement of the contract can involve making a loan, albeit very short term, to the counterpart for the full amount of the payment. Volume limits should reflect the fact that the risk of credit loss prior to settlement arises from changes in the market value of the contract. Given the sensitivity of the market value of a contract to its maturity and the volatility of the exchange rate between the two currencies, volume limits are often expressed in terms of the maximum aggregate face value of contracts that may be outstanding for different maturity ranges and for different currency pairs.

Settlement risk and credit risk prior to settlement can be reduced by requiring that the counterpart provide the bank with collateral. Settlement risk can also be mitigated by arranging for payments to be made through third-party trustees, who will release a payment to a counterpart only upon receipt of the corresponding payment from the counterpart.

Country Risk

Description

Country risk is the exposure to loss that a bank incurs when counterparts are unable to make timely delivery of foreign exchange due to circumstances in the country within which they operate. For example, a government’s imposition of foreign-exchange restrictions, or modification of existing restrictions, at a minimum can cause delays in the performance of a counterpart based in that country. In the extreme, the country loses access to sufficient foreign exchange, and counterparts based in that country are unable to fulfill the requirements of their foreign currency contracts for extended periods. Country risk is particularly relevant for countries that have not historically sustained the ready convertibility of their currency.

Measuring and Limiting Country Risk

In principle, all transactions involving foreign currency receivables give rise to country risk. Measuring and limiting country risk involves controlling total receivables due from counterparts in each country. In practice, limits should be established for counterparts based in countries with non-convertible currencies or where any potential for a shortage of foreign exchange exists.

Managing Foreign-Exchange Positions

The board of directors and senior management of a bank should determine whether, and to what extent, the bank should transact business in foreign currencies. For many banks, the resources required to manage exchange-rate risk properly are prohibitive. Other banks view the potential risks involved in foreign currency transactions as outweighing the potential profitability of the business. These banks may choose not to act as a principal in foreign currency transactions, but rather channel any necessary customer business through correspondent banks.

Where exchange-rate movements are determined by market forces, and where the accounting and regulatory systems focus on market results, sound discipline is imposed on the conduct of the bank’s foreign currency operation. Managers must pay attention to market forces. They tend to acquire greater skills and gain an appreciation for the risks and rewards of assuming a certain level of exchange-rate risk. Managers strive to improve the timeliness and accuracy of their information systems to facilitate their ability to control risk and achieve profits. Ready access to liquid markets enables banks to offset (hedge) foreign-exchange positions quickly and efficiently, providing the basis for sound risk management. Under these conditions, banks may find it acceptable to run open positions to facilitate their ability to accommodate customer loan and deposit needs, since they have the ability to offset such positions rapidly if necessary. Such banks might also operate small trading operations in order to enhance their access to market counterparts and to improve their knowledge of market conditions.

Such conditions do not always exist in developing countries. The value of the domestic currency is often controlled by the government, access to foreign exchange can be limited, and the accounting and regulatory regimes can be ineffec-
tive. The managers of exchange-rate risk are not subjected to market forces or to external discipline. Often, these managers have little experience and tend to become complacent with the contrived stability of the market. Timely information on open positions is often difficult to obtain. The lack of information renders exposure limits, if any, irrelevant. These deficiencies often come to light only when the country moves toward a more market-oriented system or when the exchange rate has been substantially realigned.

For those banks that do decide to engage in foreign currency business, senior management and the board should ensure that the operations are conducted in a sound manner and in compliance with applicable laws and regulations. The extent of operations and risk-taking should be based on the overall quality of the risk management process and the nature of the currency markets in the countries within which the bank and its counterparts operate. The experience and knowledge of management and staff, the timeliness and accuracy of information systems, and the effectiveness of risk limits are key determinants of the quality of the risk management process. The risk management process should be supported by conservative accounting procedures, comprehensive internal controls, and adequate technology.

**Foreign-Exchange Management**

**Responsibilities**

Responsibilities for foreign-exchange management should be defined clearly. Normally, the management of the foreign department (or similar unit) is responsible for overseeing foreign currency transactions and ensuring compliance with risk limits. Depending on the size of the institution, the foreign department or a distinct operational unit is responsible for operations and for generating management reports. Responsibility for establishing counterpart credit and settlement limits and country limits should be integrated with the bank's overall credit approval process. Such integration ensures that total potential exposure to any borrower/counterpart or country is controlled.

**Policies and Limits**

Banks should have a written policy governing activities in foreign currencies. The purpose of a written policy is to communicate the expectations of senior management and the board of directors (or similar body) to the management and staff. The policy should thus be reviewed and approved by the board of directors. In general, it should reflect the tolerance of the board and senior management for the various risks arising from foreign currency activities.

The policy should include a formal ratification of the limits governing foreign-exchange operations. Normally, these internal limits will have been proposed by the management of the foreign department. Overnight open position limits should be established by currency, and for all currencies combined, with an acceptable aggregation method. Where appropriate, intra-day limits should also be established.

Limits should be based on estimates of loss potential. Generally, limits for more volatile and less liquid currencies should be lower than those for stable and liquid currencies. If positions are relatively small, it may be acceptable to use a single limit for a group of hard currencies combined (for example, European Monetary Union currencies). When the domestic currency is susceptible to significant devaluations, all short positions in foreign currencies should be strictly limited, particularly short positions in hard currencies. Long positions in currencies susceptible to devaluations or to a lack of ready availability should be strictly limited.

The mechanisms by which counterpart credit and settlement limits, and country limits, are established and allocated to the foreign department should be defined in the policy. In addition to an aggregate credit limit for each counterpart, a settlement risk sublimit should be established for the size of a transaction (or transactions) that can be settled on any given day. Country limits should be established for total exposures to all counterparts based in each individual country. The policy should stipulate that the limits be clearly defined and communicated to the foreign department, and that they be reviewed and updated periodically. Limits applicable to foreign currency interest-rate risk, and on liquidity in foreign currencies, should be established in the policy.

The policy should specify minimum accounting standards and standards for the revaluation of foreign currency positions, including the frequency with which such revaluations should be performed for both management and accounting purposes. For accounting purposes, revaluations generally should be performed at the time of any required
periodic reporting to supervisors or disclosure to the public or investors. For management information purposes, more frequent revaluations should be performed, depending on the size and relevance of the foreign currency positions. The policy should establish revaluation standards that preclude the deferral of losses on foreign-exchange positions for internal reporting purposes.

**Risk Management Process**

A critical element in the overall risk management process is the quality and organization of staff involved in foreign-exchange transactions. The training, skills, and experience of the staff must be commensurate with the scope of operations of the bank. Staff should be organized to ensure adequate internal control. Procedures applicable to the staff authorized to initiate transactions in foreign currencies should be designed to ensure that all transactions are immediately and accurately recorded in order to track the bank's position in each currency, ensure the accuracy of accounting records, and ensure the proper processing of incoming and outgoing payments. A critical internal control is that persons responsible for initiating transactions are not involved in processing payments, reconciling incoming and outgoing transaction confirmations, reconciling foreign currency due from bank accounts, or preparing management reports.

Accurate and timely information systems are critical to managing foreign currency positions and ensuring compliance with relevant risk limits. Bank supervisors should ensure that banks devote the resources necessary to generating such information. Standardized reports should be designed to communicate information on open foreign-exchange positions, forward interest-rate positions, liquidity positions, and counterpart and country exposures. Positions and exposures should be reported on a consolidated basis. As noted earlier, such reports should be prepared and verified by persons not responsible for transacting foreign currency business.

Summary reports used for communication with senior management must be clear and accurate. At a minimum, a system should be established to ensure that any exceptions to policy or limits are reported promptly to senior management outside the foreign department. Exceptions to policy or limits should normally be approved in advance by the senior management of the foreign department. Management should be able to assess the potential losses that might be incurred under the limits, assuming a sufficiently conservative estimate of change in the exchange rate.

Bank supervisors in many countries impose overnight position limits on their banks. Such limits can be established by individual foreign currency, and for all foreign currency positions combined. In some instances, supervisors impose a common limit on all banks, often based on assets or capital. In others, the supervisors apply individual limits for each bank, based on the supervisor's perception of the quality of the risk management process. Recently, bank supervisors in many industrial countries have devoted efforts to establishing a capital requirement based on banks' foreign currency positions. If sufficiently conservative, such capital requirements will diminish the apparent need for supervisor-imposed position limits. Banks would be free to take foreign currency positions, as long as they were supported by adequate capital. But such capital requirements do not mitigate the need for properly functioning internal position limits.

**Notes**

2. Commitments to lend funds or purchase securities, borrow funds or take deposits, and to purchase or sell foreign currencies in the future.
3. Including asset-like off-balance-sheet commitments, such as spot and forward commitments to purchase the currency, and commitments to make loans or buy securities denominated in the currency.
4. Including liability-like off-balance-sheet commitments, such as spot and forward commitments to sell the currency, and commitments to borrow in the foreign currency.
5. Banks' financial statements are maintained in domestic currency terms, with foreign currency assets, liabilities, capital, and off-balance-sheet items converted to domestic currency equivalent values. Banks must revalue their foreign currency positions periodically, using current exchange rates to compute these domestic currency equivalent values. Changes in exchange rates since the previous revaluation will produce changes in the book value of the foreign currency positions.
6. Many accounting regimes do not require fixed assets and/or capital investments to be revalued, unless a permanent impairment of value has been incurred.
7. The rationale for this practice is that the current forward exchange rate is the rate at which an offsetting contract can be established, thus closing the open foreign currency position. Since forward exchange rates are a function of spot exchange rates and the differentials in the interest rates of the two currencies, this
accounting practice captures changes in value due to both exchange-rate and interest-rate movements.

8. Limits applicable to positions at the close of each business day are usually referred to as “overnight” limits. They function to control the bank’s exposure to exchange-rate movements during periods when the bank is not operating and, thus, is not in a position to respond to market events. In banks with more active foreign currency operations, limits may also be applied on an “intra-day” basis. One goal is to prevent booking an exposure, or accumulating exposures, that cannot readily be hedged by day’s end, thus leaving the bank in excess of its overnight limit. Another goal is to limit the exposure to intra-day exchange-rate movements.

9. The following discussion is applicable to off-balance-sheet interest-rate contracts as well.

10. In addition to the credit risk inherent in such a loan, the bank at the same time is exposed involuntarily to exchange-rate and interest-rate risk, due to the unanticipated change in its foreign currency position.

11. Contracts exhibiting market value gains are those where the contractual exchange rate is more favorable to the bank than the current exchange rate. The more favorable contract rate represents value to the bank.

12. For many contracts, such as spot and forward foreign-exchange transactions, the payment is the full face amount of the contract.

13. Note that it is not necessarily only the country in which a counterpart is headquartered that is relevant when assessing country risk. If a bank deals with the foreign branch of a counterpart headquartered in another country, country risk can be attributable to both countries.

14. If limits are based on estimated potential losses in individual currencies, the potential loss in each currency can be aggregated, and itself be subjected to a limit. If limits are based on the size of the open position in each currency, the total, or gross, open position can be determined by combining the open positions in individual currencies in one of several ways. The most conservative method is to combine the absolute values of all open foreign currency positions. This method incorporates an implied assumption that all positions can lead to losses at the same time. In other words, it assumes that the price of all foreign currencies can move against the bank’s positions. A second method is to use the larger of the sum of all long positions or the sum of all short positions as the basis for the limit on total open positions. This method incorporates an implied assumption that movements in the price of all foreign currencies are partially correlated. A third method for combining individual positions is to net short foreign currency positions against long positions. This method yields a result that is identical to the net position in the domestic currency and incorporates an implied assumption that movements in the price of all foreign currencies are perfectly correlated. This method is generally not considered sufficiently conservative for any but the most limited foreign-exchange activities.

15. At a minimum, intra-day limits would be appropriate in those limited instances where banks run trading operations. Positions arising from intra-day trading can exceed the overnight limit by many multiples.

16. Such positions often arise from external borrowings by banks or from foreign currency deposits by banks’ customers.

17. Such positions often are the result of financing exports to developing countries.
Appendix 4.
Operating and Financial Controls

It is vital that banks have effective internal controls to safeguard financial integrity, to protect the assets of depositors, and to guard against fraud. The sophistication of the internal control system will vary according to a bank’s size, organizational structure, and complexity, but there are some essential elements that cannot be omitted. Virtually every banking transaction performed has a control aspect.

Banking functions can be viewed both from the management perspective and from the control perspective. The *management perspective* emphasizes strategy, performance, and results and observes prescribed controls. It is dynamic. The *control perspective* pertains to safeguarding assets and ensuring accurate and reliable accounting data, operational efficiency, and adherence to established policies and procedures.

This appendix discusses the objectives of internal controls and describes techniques and appropriate organizational relationships. A checklist for verifying effective internal controls is attached.

**Objectives of Internal Controls**

Internal controls represent the principal safeguard against potential errors, losses, or irregularities. They are necessary to the soundness, safety, effectiveness, and legality of the bank’s operations. Thus, control systems are essential to good bank management.

The American Institute of Certified Public Accountants defines internal control as follows (Baughn and Walker 1978):

*Internal control comprises a plan of organization and all of the coordinated methods and measures adopted within a business to: (1) Safeguard its assets. (2) Check the accuracy and reliability of its accounting data. (3) Promote operational efficiency. (4) Encourage adherence to prescribed managerial policies.*

Any system of internal controls has multiple objectives. Financial control objectives aim to maximize attaining financial goals while minimizing risks, to facilitate efficient performance within established operating policies, and to ensure the reliability, adequacy, and timeliness of financial information used for reporting and decisionmaking.

**Techniques of Internal Control**

A bank’s internal controls should cover major functions and activities: data processing operations, general ledger accounting, application systems, payroll, lending, investment securities, trading activities, deposits, borrowed funds, hedging activities, trust/fiduciary activities, and cash on hand.

The basic techniques of internal control include:

- Separation of functions
- Review of transactions
- Reporting of results
- Maintaining transaction records
- Training
- Data security/protective devices
- Clerical-proof devices
- Defalcation controls.

**Separation of Functions** is the most basic tool used in the design of internal control systems, since it provides clearly established levels and lines of authority, appropriate delegation of duties, and fixed responsibilities. As a general rule, the organizational structure should provide for the separation of incompatible duties of performing a function and authorizing or recording the transaction generated by that function and maintaining custody or access to assets in addition to keeping the records of those assets.

**Review** may take place before and after a transaction has occurred. Review prior to the transaction helps prevent improper and unauthorized transactions as long as the reviewer is aware of the transaction. Review after a transaction cannot pre-
vent an unauthorized transaction, but it can uncover such transactions. For example, reviewing bank reconciliations may uncover the unauthorized use of bank accounts. For any review to be effective, it must be sufficiently thorough and complete to disclose errors or omissions, and the reviewer must be independent of the person whose activities are being reviewed.

Reporting provides information on the institution's performance, financial condition, and variances from budgets and strategic plans. In addition, departmental operating reports provide evidence of transactions and review that complement internal control activities.

Appropriate records are essential to maintaining sound internal control. They facilitate the review of transactions and the work of internal and external auditors, and they are essential to support information reports within the organization.

Training enhances internal control by ensuring that staff members know their duties and responsibilities, and such training should include explaining the relationship of the individual's duties to the overall objectives and policies of the bank so that the interrelationship of his/her duties with those of others is clearly understood.

Data security requires physical-access controls, electronic-access controls, and transmission security. Protective devices such as locked cash drawers, vaults, secured doors, and cameras provide protection against unauthorized entry and/or transactions, and should be used whenever feasible to safeguard physical and financial assets.

Clerical-proof devices improve internal control by ensuring accuracy when transactions are recorded by helping to eliminate unintentional errors. These controls include such mechanical devices as calculators, cash registers, and bookkeeping machines, as well as nonmechanical devices, such as double-entry bookkeeping and independent recalculation of all totals.

Defalcation controls pertain to both employees and customers.

Internal auditors, external auditors, and regulatory examiners test and monitor the effectiveness of a bank's system of internal controls. Reports issued by these groups outlining internal control deficiencies require immediate and thorough management response, detailing the steps to be taken to improve the level of internal control. Financial management is an appropriate locus for the primary on-going interface with these independent components of a bank's audit process.

Maintaining effective internal control requires constant attention to changing circumstances and operating environments such as increased use of information technology that can outmode existing controls or create the need for new ones. On behalf of the board of directors, management should conduct regular reviews of the system of internal control, independent of any audit activity, and make appropriate adjustments to ensure that the overall level of control is meeting policy standards.

Internal Audit vs. Internal Controls

The internal audit department is responsible for reviewing the system of internal controls and determining whether they are being adhered to. Internal audit also ensures that all procedures developed for the processing of transactions—that is, payments transfers, check cashing, and loan disbursement—contain appropriate controls. In addition, the internal audit department has a vital responsibility for preventing and detecting fraud and for providing systems to reduce the possibility of fraud from inside the bank.

Fundamentally, the internal audit department is responsible for safeguarding the bank's assets, its financial integrity, and thus its good name. But it should also be responsible for ensuring the effective utilization of the bank's resources. This concern with cost reduction and profitability can be called "operational auditing" and should proceed concurrently with the financial audit. Therefore, the responsibilities of the internal auditor (as summarized by the U.S. Institute of Internal Auditors and cited in Baughn and Walker 1978) are as follows:

- Reviewing and appraising the soundness, adequacy, and application of accounting, financial, and other operating controls and promoting effective control at reasonable cost.
- Ascertaining the extent of compliance with established policies, plans, and procedures.
- Ascertaining the extent to which company assets are accounted for and safeguarded from losses of all kinds.
- Ascertaining the reliability of management data developed within the organization.
- Appraising the quality of performance in carrying out assigned responsibilities.
- Recommending operating improvements.

To ensure objectivity, the internal auditor should ideally report directly to the board of directors, which is ultimately responsible for the safety and
soundness of the bank. Internal audits identify any necessary corrective actions and ensure implementation under the supervision of the board and/or the bank's CEO. Thereafter, the information gathered by the internal audit should be made available to the qualified independent public accountants who carry out the annual external audit of the bank's operations (see box A4.1).

**Accounting Controls: Interbranch and Interbank Reconciliations**

Many banks in developing countries reconcile interbank accounts only at the end of the financial year, while interbranch accounts are often not reconciled at all. But because there are often timing delays in the posting of transactions between banks and among a given bank's branches, significant differences in balances necessarily occur.

Theoretically, these differences affect only the balance sheet. However, in reality, some items may have an effect on the profit-and-loss account or may be errors. Without regular reconciliations of the accounts to explain and rectify these differences, it is possible that errors will go undetected for a considerable period of time. This situation provides a fertile area for malpractice. It is not unheard of that banks in developing markets have unreconcilable interbranch accounts that exceed their capital. Ultimately, the bulk of these must be written off as losses.

Thus, it is highly recommended that banks carry out interbranch and interbank reconciliations at least monthly, while accounts with a high volume should be reconciled and items cleared on a weekly or even daily basis.

**Security Controls**

Effective physical security is a vital element in keeping the confidence of a bank's customers and safeguarding assets. Vaults, cash transportation, records, documentation, and computer installations must be covered by security controls.

**Compliance**

Compliance systems are intended to ensure that an institution is operating within the constraints of law. Compliance systems may operate parallel to, or as part of, a bank's internal control and auditing system. However, the focus of this activity is on compliance with laws, rulings, and regulations rather than on the safeguard of assets, the reliability of information, operational efficiency, or adherence to policy that are critical to other aspects of internal control.

**Personnel**

Complete personnel records should be kept and updated whenever necessary. A computerized payroll system should be introduced, after which a review of salaries should be performed every month by the branch manager. It is appropriate for a bank to encourage its staff to open checking
accounts so that their wages can be paid directly into their accounts rather than being handed over in wage packets.

Another way to guard against staff abuses is to enforce absence from the same duties either by requiring that all personnel take an uninterrupted vacation of at least two weeks every year or by periodically rotating the duties of the personnel.

Treasury Controls

Liquidity Management

It is desirable that a head office treasury department coordinate liquidity management within the bank. This function is inefficient when carried out at branch level, since each branch has a view only of its own liquidity rather than that of the bank as a whole. Significant earnings opportunities are lost under such a fragmented system.

Interest-Rate Exposure Management. The treasury department should obtain information from all "line" areas within the bank. This information should be aggregated for the entire balance sheet and should include:

- Loan and deposit amounts by currency
- Date of drawdown/placement
- Interest rate (and basis of calculation of interest)
- Interest payment dates
- Date of final repayment.

With this information, the treasury department should assess and manage the risk and exposure positions of the bank, as discussed in chapter 4, "Financial Management."

Credit Management Controls

Credit risk management is discussed in chapter 3. Below is a quick reference list of control aspects.

Credit-Rating System. Banks should have a credit risk rating system in place for initiating new loans, as well as for monitoring them. To ensure that it is applied uniformly, the bank's credit procedures should include details on how the rating system should be applied and should provide for the periodic review of loan ratings.

Loan Authorization Limits. The limit levels imposed should take into account the size of the branch or division, the experience of the branch or division manager, and the quality and experience of the staff involved in the assessment process.

Security Valuation. To the extent that banks take security on loans, valuation should be current and represent fair market value under distress sale. The objective is to find the value that best estimates the likely proceeds from the sale of the security item in the event of a default by the borrower. This is often calculated as the insurance value or the recorded balance-sheet value of the item. However, it is much more satisfactory to have the item valued independently by a professional valuer.

Completeness of Loan Documentation. In most banks, the branch or division manager is responsible for ensuring that all documents are on file before a loan is approved. However, in reality, the loan is often allowed before all paperwork is received by the bank; thereafter, the missing documents can be difficult to obtain.

A checklist simplifies this procedure, since the lending officers can check off each document against the form as it is filed. The officer authorizing the loan will then be able to review the checklist and easily identify and acquire the missing documents before he or she authorizes the loan.

Policy Compliance Monitoring. A bank must also have adequate loan monitoring procedures to ensure that its credit policies are fully implemented throughout the bank and that problem loans are identified and, thus, dealt with promptly. The main areas for which monitoring procedures must be effective are the following:

- Exposure to industry sectors
- Exposure to groups of connected borrowers
- Collateral concentrations
- Off-balance-sheet commitments.

Standard Loan Contracts. Banks clearly retain the right to withhold credit if the customer is no longer creditworthy, and this right is almost always spelled out in some way in standard loan contracts. In addition, the contract usually contains a clause that allows the bank access to the books and records of the borrower to ensure that the customer is maintaining creditworthiness.

Loan agreements also sometimes contain a clause that requires the customer to reveal to the bank any major change in his business structure or operations.

Control of Collateral Documents. All collateral documents should be kept permanently in the safe at the bank to minimize the chances of their being lost, misplaced, or released early. If they must be moved, their movements should be logged and the register should be reconciled periodically with the collateral documents that are actually in the safe. This system ensures that the location of collateral documents is known at all times and that any loss can be identified promptly.
Credit Assessments of Other Banks. Formal policies should be established about lending to other banks both within and outside the bank's country of operation. These policies should address such issues as the assessment of the other bank's creditworthiness and the relevant exposure limit and authorization procedures. These procedures allow the lending bank to monitor and control its credit risk in this area of its operations.

Evaluation Checklist

A bank's internal control system can be assessed by asking the following questions:

1. Are the composition and activities of the board of directors appropriate for a bank? Has the board of directors developed a clear system of internal controls and defined their objectives? Does the board meet monthly?

2. Does the bank have written policies, standards, procedures, and operating budgets? What is the attitude of management toward good controls?

3. Is there a treasury department that is responsible for the bank's interest rate and maturity transformation risk management? Does the bank have a management information system adequate to the department's needs?

4. Do job descriptions exist for all positions in the bank? Are there written codes of conduct? Are full, up-to-date personnel records kept? Are transactions-processing procedures documented in a procedures manual to be used as a guide for staff and a control device for internal audit? Is there a proper segregation of duties?

5. Does the internal auditor report directly to the board or to the bank president?

6. Is there a credit-rating system in place? Is it applied uniformly throughout the bank? Is there a strict hierarchy of loan authorization limits? Does the headquarters office regularly review loans that are within the branches' authorization limits?

7. Is a checklist kept of all documentation relating to a given loan? Is the loan granted before or after all the documentation has been received?

8. Does the bank have a policy on limiting its total credit exposure to individual borrowers, to certain industrial sectors, or to groups of connected borrowers?

9. Is there a procedure for assessing the risks inherent in off-balance-sheet commitments?

10. Does the bank's standard loan contract require a customer to reveal any major change in his business?

11. Are all collateral documents kept under lock and key?

12. Does the bank monitor the creditworthiness of other national and international banks?

13. Is the function of liquidity management performed centrally by the headquarters office treasury department?

14. Is branch performance measured according to realistic and quantifiable parameters?

15. Is key information aggregated for the entire bank balance sheet? Does the treasury department have the necessary management information system to model the bank's risk and exposure positions?

16. Does the bank maintain its statutory reserves?

17. Are accounting records current, reconciled, and accurate?

18. Are interbranch and interbank accounts reconciled frequently, at least monthly?

19. Are security controls adequate?

20. Is there evidence of internal audit practice covering the following areas: operations, accounting, financial transactions, data security, and defalcation?

21. Is there a business plan, a financial plan, and an annual budget? What is the review process for performance measurement and variance reports?

Notes

1. Thus, while this book treats credit risk management and financial management as comprehensive management processes, this appendix refers only to the control aspect of credit and financial management.
Appendix 5.
Information Technology in the Banking Industry
Khalifa Ikramullah

Information technology (IT) may be defined as the automation of processes, controls, and information production using computers, telecommunications, software, and ancillary equipment (e.g., automatic teller machines, debit cards).

Information technology is increasingly being recognized as an imperative if the banking industry is to remain competitive and offer a wide range of financial products and timely services. Leading financial institutions have opened branch offices, or collaborated in joint ventures to establish correspondent networks, in developing countries. Parent banks usually institute the head-office information and procedural systems in their subsidiaries' operations. Often, these critical systems (customer accounting, general ledger, credit/risk management, etc.) are computer-based with a strong service orientation. To offer similar service levels, operate more cost-effectively, and retain a competitive edge, local banks are often forced to invest in IT. This is evidenced by banks in countries with disparate technological environments (like Brazil and Ethiopia with their vastly different educational, skilled staff, investment, and telecommunication opportunities) introducing computer-based information systems. This annex highlights some considerations and issues pertinent to IT in the financial sectors of developing countries.

The Applicability of Information Technology in Banking

Investment in IT may be considerable depending on the needs of the institution and the sophistication of the solution, but with adequate planning and management they can prove cost-effective and successful. A number of considerations may necessitate the utilization of IT, irrespective of the initial investment and subsequent recurrent costs. These include the need for timely, accurate, and relevant information to enhance strategic planning, facilitate the analysis of diversification strategies, and improve routine administrative operations. Concomitantly, the driving force could be the necessity of improved operational efficiency, increased profitability, and a comprehensive MIS. There is also the need to provide improved customer service (especially in the case of depositing and encashing monies throughout the branch network), achieve accurate and timely bookkeeping, and institute improved controls and accountability. Competition exerts pressure on banks to offer comparable automated services and extend a professional image.

In this context, the need to access domestic and foreign capital and money markets, use the international SWIFT (Society for Worldwide Interbank Funds Transfer) network for intercountry wire transfers, link with correspondent banks, and process foreign exchange and securities transactions may necessitate the exchange of data in electronic form. Continued manual operations in the highly automated banking industry could prove costly in terms of increased "float," losses due to foreign exchange fluctuations, and inadequate liquidity management. Banks also need to minimize the number of trained staff required to maintain general ledgers, customer accounts (checking, savings, loans, time deposits, etc.), letters of credit, trading and investment management details, and other transactions.

A dearth of trained personnel, especially in developing economies, is often a major deterrent to efficient operations. The introduction of computer-based management information systems—employing information technology—minimizes this staffing requirements. Financial analysis and statistical research, including modeling of portfolios and securities, formulation of investment approaches, and market trend analysis, can be undertaken with much greater efficiency and speed through the introduction of IT. The central banks require over-
Building Strong Management and Responding to Change

sight and governance of payments operations and standards. This would require banks to provide timely and accurate analysis of financial positions and activities, including floats, liquidities, foreign exchange transactioning, external accounts/holdings, reserves, balances, credits, margins, etc.

Functions Amenable to Automation

The traditional view of a management information system (MIS) as a staff function ignores the pluralism of organization decisionmaking and the link between information and power. Information systems increasingly alter relationships, patterns of communication, authority, and control. A strategy for implementing MIS, for example, must therefore recognize and deal with the politics of data and opposing influences. Introducing automation usually requires a major change in the organizational culture and generates resistance. To counter this resistance, an organization must build coalitions among the implementors of change (data processing staff), user management, and operational staff. The following paragraphs briefly discuss the key dimensions influencing the effective implementation of IT within an institution, and some recommended initiatives.

A variety of functions and services specific to the banking sector are logical candidates for automation. These encompass:

- **Financial services**—Customer accounts, current/deposit/savings, cash and liquidity management, mortgage financing, funds transfer, retail and correspondent banking, credit cards, direct deposit/debit transactions, asset/liability and risk management.
- **Trade services**—Letters of credit, foreign exchange, commercial credits, guarantees, and revolving credits.
- **Money market**—Securities trading, foreign exchange settlements, and portfolio management.
- **Loans and deposits**—Lending, placements, loans syndication, and financial engineering.
- **Asset-based financing**—Industrial leasing, and factoring.
- **Securities**—Custodial services, trusts, and investment management.
- **Insurance**—Credit, accident, fire/theft, life, and motor.
- **Administrative functions**—Budgeting, general ledger and accounting, human resource management, payroll, pension, accounts payable/receivables, fixed assets, inventories, and cost analysis.

Automation Solutions

The functions outlined above may be automated through various hardware and software solutions. There are no standard "models" as a successful solution is dependent on the organizational structure, operational environment, centralized vs. decentralized data bases and data capture/production requirements, existing IT infrastructure, staff skills and experience levels, investment capacities, local vendor support capabilities, etc. Moreover, the central bank's reporting modalities (e.g., daily reporting of liquidities and reserves) might dictate an "on-line" system with the branch office records being maintained centrally; alternatively, a monthly reporting cycle could be satisfied with "batch" and decentralized system engineering. Other contributory factors influencing the design include the availability and cost-effectiveness of an electronic fund transfer network (EFTS), the desirability of offering debit/credit services through automatic teller machines (ATM) or point-of-sale terminals (POS), the need to interface with external money markets, and linkages with SWIFT. The overall design has a significant impact on the human and financial resources required to sustain the program. Three possible models are discussed below.

1. The "back office" operations—for the maintenance of central customer information files, general ledger, human resource management, and payroll, and the generation of appropriate control and management reports—form the core of an automation effort. Typically, these core functions are accomplished on a mini or mainframe computer located at headquarters. Customer services (for deposits, withdrawals, and account status) may be either offered on-line through terminals connected to the headquarters machine or enacted manually in conjunction with computer journals updated and produced overnight in "batch" mode. The branches may be supported by the mainframe or may use microcomputers (either stand-alone or networked) to register distributed accounts and subsidiary ledgers. The viability of the distributed solution is dependent on the desired functions to be processed and the database and transaction volumes to be accommodated at the branches. This distributed architecture requires periodic transmission of liquidity and customer data and balances to the headquarters computer, for reconciliation and consolidation.

2. Another variant of this scenario might entail the development of a network of regional mini-
computers, each supporting a number of smaller branches for account retention, processing, retrieval, and reporting. The regional minicomputers would need to be connected electronically, or through manual exchange of data files, to the headquarter's computer for corporate data aggregation and analysis. The extent of decentralized decisionmaking, peak transactional volumes, and banking products and services, together with the quality and sustainability of the telephone or telecommunications links, usually dictates the design of the hardware and software architecture.

3) A least-cost solution would envision the automation of bank operations on microcomputers. The workload and response time requirements would determine the use of either stand-alone or networked (through LAN) microcomputers.

Organizational Issues

An automation program, using IT for a computer-based MIS, should be viewed as a component of an institutional development or strengthening exercise and should be considered as a key resource to be applied judiciously in support of institutional goals. Ideally, it should follow an institutional diagnostic effort and preliminary institutional development measures. A popular misconception is that automated systems will resolve operational problems; however, an automated system requires a high degree of structured and defined procedures and controls to function effectively (e.g., a well-conceived system of customer and chart-of-accounts codes). The well-known saying—garbage in and garbage out—is very true, as even the best system is only as good as the quality of data captured and the manner in which the outputs are utilized for control and decisionmaking. Unless the basic organizational and data framework has been rationalized, a premature introduction of IT can exacerbate inherent problems and deficiencies. The "pre-automation" activities often entail streamlining the organizational structure; improving the management decision-making processes and accountabilities; systematizing manual operations; introducing appropriate training programs; and instituting standardized forms and codes, data flows, and procedures.

Management Commitment

Understanding of, and commitment to, an automation program from all levels of management is essential for the program's success. Senior managers need to allocate time to understand the implications and complexities and should not delegate the responsibility of the project to technical staff, who are usually isolated from the mainstream of the organizations' behavioral and business nuances and overall business objectives. Two key factors that management should consider are the available human resource skills and the organizations' absorptive capacities. Appropriate incentives, training, and informational schemes should be instituted before the computers are installed to ensure receptivity and to minimize "teething" problems and delays. On the other hand, operational managers should be made accountable for the success of automation in their respective functional areas, with a clear demarcation of duties and responsibilities between the users and the data processing personnel. In some organizations, the DP department is responsible only for the IT standards and policies and the supply of standard tools—hardware, application software, maintenance services and programming support—while the users are responsible for operating the automated systems and maintaining the integrity of the data bases.

Investments and Costs

The introduction of IT usually requires sizable financial investment. Management should decide at the outset on the tradeoffs and the return on the investment. The IT industry generally accepts a five- to ten-year effective lifecycle for the hardware and the banking software; technological developments and evolving and increasing user information needs generally dictate replacement of both hardware and software after this period. Management should delineate, at a minimum, the five-year lifecycle costs in analyzing costs and benefits. The major cost elements to be investigated include infrastructure, investment, and recurrent costs.

Infrastructure Costs are associated with developing a rational and streamlined information framework. This usually involves reviewing and streamlining the data flows, procedures, accountabilities, internal controls, procedural documentation, chart of accounts, forms, and codes (especially branch and customer numbering schemes). It may be necessary to use external assistance if such expertise is not available internally.

Investment Costs are incurred for the purchase of new equipment. This includes hardware, operating systems software, banking and other appli-
cation software, software utilities, telecommunication drivers/devices, computer room and environmental control equipment, possible turnkey management services, file conversion efforts, technical assistance for system design and development, study tours for both the data processing and line management personnel, training in the revised systems, etc.

Recurrent Costs include hardware and operating software maintenance and enhancements, software licensing and upgrades, application software customization, technical services for implementation assistance, user and IT professionals training programs, computer supplies, telecommunication lines/charges, travel and transportation, data processing salaries and overheads, utilities, computer rooms and physical security measures, etc.

Data Security and Control

An important but frequently ignored consideration is the issue of security, controls, and accuracy of data and systems. The internal audit group should be augmented by at least one staff member skilled in computer-based auditing techniques. The group should provide a monitoring capability to ensure that proposed technical solutions are viable and cost-effective. The group should also audit application software, both during the testing phase and during its operation, to validate its accuracy and integrity. Software and data access controls and administration, formulated in conjunction with and approved by the internal auditors, should ensure a strong audit trail. The organization should confirm that the external auditors are familiar with information technology issues and problems and have the capacity to play a proactive role in evaluating computer-based systems, software, controls, and procedures.

Process of Change

This section outlines the major milestone events and activities necessary for the successful introduction of information technology. The activities (listed in chronological order) assume that the institution has no prior computing capacity. If it has a reasoned and feasible automation plan, the institution may bypass the first two activities.

Business Plan

IT introduced without adequate planning and without due regard to the organizational objectives and strategies can often result in suboptimal solutions. In some cases, the inadequate systems have had to be replaced at considerable cost, dislocation of operations, and disenchantment with automation. As mentioned previously, financial institutions should first conduct an institutional development program that would address operating deficiencies and define the institutional role, objectives, products, and services, as well as an operational strategy that should include external interfacing mechanisms.

An effective organization structure should be outlined in accordance with the strategy, and improved operational effectiveness stressed with special emphasis on financial management and internal audit. Policies and procedures should be defined, particularly in the areas of credit/risk/liability management, branch functioning, foreign exchange operations, investment management, determination of performance indicators and overall planning and budgeting; and financial institutions must pay attention to staffing needs and the importance of a human resource development plan. The master plan basically defines what an organization is doing and how it should be structured to achieve its goals.

Automation Strategy

Work on the development of an automation strategy—a blueprint for action—can commence as soon as the organizational goals, products and services, structure, and procedures have been defined. It needs full endorsement and support of senior and middle management and an organizational consensus on the operational changes required.

One method of obtaining and retaining management commitment to the automation program is to create an automation steering committee, which would participate in defining information needs and formally approve all elements of the automation strategy. The committee should continue functioning throughout the implementation of the automation program to make decisions, to arbitrate in the event of conflicts, and to monitor progress and delays. It should comprise reasonably senior managers from the key functional areas being automated; the data processing manager should report to and obtain policy direction from the committee. The committee should take responsibility for the success of the automation project.

Depending on the complexity of the program, the organizational structure, and the geographical distribution of organizational units, the strategy
formulation could require six to twenty-four staff months. The major elements of an automation strategy include:

- Identification of opportunities where IT will provide a strategic advantage, increase profitability, and improve operating efficiencies.
- An assessment of the current status of information technology—strengths and weaknesses of the hardware, application systems, proficiency of technical staff, responsiveness to institutional needs, effectiveness, etc.
- A conceptual definition of the information needs of all functional areas, creation of an information framework, and recommendations for revised procedures/forms/codes to sustain the automation program.
- A conceptual specification of the required application systems.
- Creation of an effective application system architecture (either centralized or distributed) commensurate with the institutional culture. It should take into account the institutional absorptive capacity, available staff skills, organizational policies, infrastructural constraints, and strategic objectives.
- A generic description of hardware, software, and application systems at all “processing nodes” with due regard for interrelationships and data linkages and data exchange periodicities.
- The functionality and modus operandi for each category of hardware.
- A phased implementation schedule with measurable outputs and milestone events, intermediate deliverables, project management arrangements, and an estimation of the manpower effort needed to accomplish the critical activities.
- The role, organizational placement, chargeback mechanisms, and staffing of the data processing department and its user-interaction relationships and responsibilities.
- A training program for both user and DP staff.
- An estimate of the project’s five-year life cycle investment and recurrent costs.
- Compilation of a tender document, if equipment or software is to be procured.

Replacing or Augmenting Hardware

If institutions already have operational hardware and software that needs to be replaced or enhanced, the general tendency is to initiate “sole source” procurement. This may be a valid request if the procurement value is nominal (for example less than $200,000) or if it qualifies for local shopping. However, in most cases, vendors will offer their product lines and also quote for conversion of the existing systems, databases, and files to operate on their equipment. They may even offer functionally superior application software and warranty the conversion results. To enable them to do so, the tender document needs to include comprehensive technical and performance specifications for both the existing and the desired systems.

Elements of a Tender Document

The tender document should explicitly state the mandatory local presence/affiliation and prior experience conditionalities of the vendor. Additionally, the vendors’ local and regional staffing, the type and degree of software and technical assistance support required, the hardware back-up arrangements, training services, response times for maintenance calls, performance penalties, etc. need to be elaborated. If the vendor must supply software packages or develop software, appropriate formal “acceptance testing” and “change or enhancement” mechanisms, together with project management and implementation responsibilities, need to be included in the draft contract section of the tender document.

For each desired application system, the organization should state the mandatory database elements; peak and average transaction volumes at each processing node (including deposits, withdrawals, account queries, transfers, etc.); data char-
acteristics (length and format of key data elements like Chart of Accounts and Customer Account structures); processing requirements; and a listing of the essential reports with major data categories. If computer files are to be converted, the master file layouts should be included, and the vendor should be advised on how the existing hardware is to be integrated with the new equipment. These details should be finalized and recorded as an output of the Automation Strategy, which should also define the information strategy and engineering. The conceptualization of these details at the outset will ensure that users, managers, and DP techni-
cians have all agreed on their respective require-
ments. The information will enable the prospective vendors to configure and size their equipment in accordance with the stated functionality, re-

cponse times, and volumes; research and identify an appropriate suite of software; quantify support services; and accurately estimate costs. Often, prospective buyers will identify the hardware first without specifying their requirements. This may result in excessive computing capacities or inade-
quate solutions.

An important section of the tender document is the evaluation methodology. It should be struc-
tured and transparent and should specify how the various criteria of the major components (hard-

erware, software, application systems, TA, five-year life cycle costs, etc.) will be evaluated and graded. It could be achieved through a point-numbering schematic for technical performance and a subse-
quently combination with the five-year costs, with predefined weights to the technical and price evaluation components. The weight given to costs generally ranges from 50 to 75 percent depending on the size of the procurement and types of services required. The prior definition of the evaluation criteria and weights will ensure that the organization has thought through its priorities and require-
ments and will support an impartial, transparent, and knowledgeable evaluation.

Procurement Costs and Lead Times

The magnitude of the procurement will vary con-
siderably depending on the needs of the institu-
tion. At the low end of the spectrum, the installa-
tion of a few microcomputers (possibly networked) along with packaged banking software could cost $50,000 to $250,000. A minicomputer (or two) in-
stalled in headquarters could entail an expenditure of $800,000 to $3 million. At the high end of the scale, the procurement of one or two powerful main-
frame computers with eight to ten networked mini-

computers, packaged software, and turnkey man-
gagement assistance could require a capital invest-
ment of $5 million to $20 million. These estimates assume the purchase of banking packages and some degree of customization to provide satisfactory performance. However, if systems are developed in-house or with the assistance of external consultants, the project costs could increase by $2 million to $20 million depending on the scope and desired complexity (e.g., number functions to be developed, on-line update capability, decentralized operations, electronic data linkages, automatic software up-

Typically, the procurement and installation lead times for mini and mainframe computers are in excess of ten months. This time frame includes:

- Two to three months from tender issuance to bid submission.
- One to three months for bid evaluation.
- One to two months for contract finalization.
- Four to eight months for equipment delivery.
- And at least one month for installation and commissioning.

These are estimates, assuming timely actions by the borrowers, expeditious approvals by the World Bank, air shipment of goods, and an appropriately configured computer room facility. A more likely time frame is twelve to eighteen months from the date of bid issuance. Application software develop-
ment or customization activities should begin as soon as the contract is finalized and should not be contingent on hardware installation.

Training and Human Resource Development

Appropriate skills enhancement programs, study tours, formal educational courses, and on-site workshops/seminars should be initiated immedi-
ately after contract finalization. The training should focus on the specific hardware and software contracted for and should include both the DP per-
sonnel and key user staff from different functional areas. The contracting parties can give generic IT training (e.g., programming, systems analysis, etc.) in-house, if feasible. Training in hardware operations, operating systems software, applications packages, etc. are usually vendor-specific and may have to be conducted at the vendor premises. The number of staff required to operate hardware varies with different configurations and suppliers—for example, modern-day minicomputers can usually be administered by a part-time operator, while
a mainframe machine can require up to six opera-
tors and operating-systems specialists. Some types
of mainframes and local area and telecommunica-
tion networks may require highly trained opera-
tional staff unavailable in the country. On-the-job
training for both hardware and operating software
should be emphasized in the training program.

In cases where banking software is being cus-
tom-developed, the DP staff should participate in
the programming teams, as far as possible, to fa-
cilitate on-the-job training, promote technology
transfer, and gain first-hand knowledge of the pro-
gram logic rules and structures. This will enable
them to become self-sufficient in subsequent soft-
ware enhancement and maintenance tasks.

As soon as the organization identifies the se-
lected banking software modalities and procedural
determinants, work should commence on fine-tun-
ing the manual processes, forms, and codes needed
to sustain the automated systems. The procedural
refinements and user training (for both manage-
ment and operational staff) should be initiated be-
fore the application software modules are actually
put into production. User training is especially
important if new technology (e.g., on-line data en-
try and update, customer account reference and
retrieval) is being introduced. Often, this critical
aspect of training is understated, with consequent
"user acceptance" delays and predicaments.

Implementation Observations

An automation program should be phased to en-
sure that staff retraining efforts and the institu-
tional capacities to absorb change are feasible. Data
processing (DP) personnel have been known to ad-
vocate hardware-oriented solutions that are often
unduly sophisticated and not in consonance with
the organizational culture and mode of operations.

An overly ambitious program, in terms of hard-
ware, costs, and complexity, can increase the basic
resistance to change and adversely affect its accept-
ability by user staff and their motivation to make
computer-based procedures work successfully.

A possible phased strategy is to implement the
"core back office" functions (general ledger, cur-
rent/savings/deposit accounting, payroll, etc.) first
at headquarters. After these applications are func-
tioning adequately and are in production mode,
they could be extended to the branches. This may
be achieved either by application or by physical
location, in sequence.

The concept of "piloting" each application first
usually reduces the risk of failures. This usually
entails the introduction of an application in a "test
site," debugging and modifying it until it satisfies
the user needs, and subsequently putting it in pro-
duction status.

A limited and low-cost approach, utilizing mi-
crocomputer-based solutions, may be desirable in
some organizations with no prior exposure to au-
tomation. Such an approach would foster computer
literacy and establish appropriate procedural modi-
fications and disciplines. This interim solution may
be replaced in due course by a comprehensive and
sophisticated suite of hardware and software after
the organization has attained the necessary skills
and experience. The microcomputers and software
could easily be integrated into the overall system
design to preserve the investments.

If a function (e.g., savings account) is being
automated for the first time, a "cut over" date has
to be established. As of that date, the end-of-day
balances with customer details will need to be
registered on the computer data base. While this
exercise is under way, all transactions will have to
be processed manually and retained for computer
updating after the data base contents have been
accurately registered. Then the manual and com-
puter-based balances will need to be reconciled.
This is a complex activity requiring close coordi-
nation between DP personnel, user staff, and the
auditors. The magnitude of the effort depends on
the number of accounts and branch office networks,
the volume of transactional activity, and the inci-
dence of errors in posting.

In many instances, financial institutions first con-
vert the typical back office core functions (e.g., gen-
eral ledger at headquarters) before extending auto-
mation to branches. The implementation effort
could be undertaken either functionally, by loca-
tion, or by a mix of both. In all cases, it is generally
advisable to first "prototype" or initiate a pilot op-
eration for at least one processing cycle in parallel
with manual operations. Once all the teething prob-
lems or "bugs" have been resolved, and the users
officially sign-off on the acceptability of the applica-
tion, the automated system should replace the
manual processes. Implementation time frames
vary widely with the number of records, volume of
activity, and kind of functions under consideration.
For example, conversion of fixed assets is a rela-
tively easy task owing to the static nature of the
application; on the other hand, current accounts
is a highly active application requiring close moni-
toring and scheduling of conversion tasks. Typically,
for a medium-sized bank with twenty to thirty
branches, full implementation of all functions could
easily take three to five years even with packaged banking software.

While new functional areas are being automated, there will be a requirement to maintain and enhance applications systems that have been put into production. This may be necessary because of programming discrepancies, design deficiencies, requirement of new or enhanced reports, or simply a change in the way the financial institution operates or in which it has introduced new products and services. Because of the extensive staff resources required during the introduction of information technology, financial institutions often contract the vendor or locally established consulting services to assist in the implementation activities. Unless the vendor has a substantial nucleus of systems/programming expertise in the immediate vicinity, it may be advisable to use third-party consulting services—either turnkey or specific support—during the initial phases. This policy could minimize the number of in-house DP personnel required at the outset to satisfy the initial resource demand and to provide a backup source of expertise.

**Major Information Technology Activities**

**Data and Procedural Framework**

The need for a rationalized framework has been identified as a prerequisite for a successful automation project. The success and effectiveness of an automated function can be gauged by the degree of user satisfaction with the processed outputs and with supporting procedures for data collection, collation, data entry, computer processing, data retrieval, and the use of reports. The use of packaged software may, at the outset, entail a revision in procedures. This should be accomplished through extensive user training and updated procedural manuals that reflect the changes in operating methods. The user and procedural documentation should be easily understood and should complement the technical documentation on the software. The importance of up-to-date, comprehensive, and usable manuals cannot be emphasized enough; deficiencies often result in acrimonious debates between users and DP staff and lack of understanding of mutual obligations.

**User Assessment**

A monitoring mechanism should be instituted to evaluate deficiencies, noncompliances, delays, or errors in the operation of automated application systems. A formal problem-reporting and problem-resolution methodology should be instituted. The IT Steering Committee could be an appropriate body for initiating policy actions, allocating priorities, and resolving disputes.

**Definition of User Requirements**

This is the single most important phase of the system development cycle. Irrespective of whether applications are being custom-designed or whether packaged software is being procured, the requirements of each operational area must be delineated, in writing, and in sufficient depth to enable the reader to confirm the desired functionality. The elements to be defined include reporting needs, input and transactional data, processing logic and algorithms, and the necessary controls and edits. The requirements should ideally be defined by a team comprising user specialists from each functional area and the DP technicians. Both disciplines should formally agree with the defined requirements.

**System Engineering/Design**

The next step is the translation of the user requirements into a set of system specifications that will include file structures, data contents, application system modalities (e.g., on-line updating of customer records, intrabank transfers) and operational imperatives. This is usually done by DP personnel with user input on the design factors. The individual applications and the overall systems architecture will need to be designed according to the specifications. Design considerations include a decision on centralized and decentralized operations (for example, a central customer data base at headquarters accessed by all branches, or decentralized subsets, or independent account maintenance); data base and transaction volumes; staffing considerations; the decision to exchange data electronically over dial-up or dedicated telecommunications lines or to use diskettes; on-line or batch updating of files; and use of ATM networks, and so forth. The design should be commensurate with the institutional overall strategy and operational environment.

The system engineering determines the implementation time frame and the needed resources (financial, human, infrastructural, training, etc.) and also dictates the type of hardware needed to accommodate the system. A design concept gaining
increasing popularity is the decentralized architecture with "functional" data sets retained on mini/microcomputers located in the respective areas, together with an institutional data base resident on the central mainframe.

System engineering should emphasize "value-added" services and support the organization's higher priority activities. For example, the inclusion of electronic messaging, graphics, and so on will add considerably to the project's scope and cost and will probably be implemented much later than the core functions. These capabilities should be relegated to a later phase after the immediately needed systems have been implemented.

Applications Software

Packaged Software vs. Custom Development

A key decision during the formulation of an automation strategy is whether to buy packaged (and off-the-shelf) application software or develop it in-house. In the first case, the design of the packaged software will drive the hardware architecture, the performance characteristics of the automated systems, and the basic reporting formats and contents. A wide choice of packaged software applications is available from hardware suppliers, consulting companies, and independent software development houses. Packaged banking software usually offers between 50 and 80 percent of an institution's operational requirements; reasonable customization and enhancement work may be needed to achieve full functionality, and the vendor usually has to provide this effort. This approach, however, has the advantage of allowing a financial institution to automate its operation within a short time frame and at a reasonable cost. For example, it may take three to six staff months to customize an existing budgeting and general ledger (G/L) package, while the custom-development of a new G/L system may require three to four staff years' effort. A considered decision to buy or develop application software has to be made after careful evaluation of the tradeoffs involved, the suitability of internationally available software, and the support offered locally for customization and enhancements.

The banking and other application software determines what data is processed, how it is processed, and the applicability, contents, and ease of use of the terminal screens and reports. Therefore, the emphasis in procuring application software packages should be on the selection of a suite of integrated packages that automatically exchange data (from the payroll and customer accounts to the general ledger, etc.) and best conform with the user requirements. The choice of a compatible suite of packages will often predetermine the hardware vendor, as most packages operate on specific operating systems proprietary to one hardware manufacturer. The exception to this rule are packages that run on a derivative of the UNIX operating system, which is supported by most major hardware suppliers. However, the choice of UNIX-based packages is currently limited. In view of the above, it is generally advisable to tender for a combination of application software packages and computer hardware and request either the hardware or the software vendor to perform as the prime contractor.

If the institution plans to develop the banking and application software in-house, it should investigate the use of data base management systems (dbms) to minimize the system developmental efforts and expedite the process. Since expenditures on hardware are usually only 25 to 40 percent of the total automation program costs, with the majority of the costs being attributable to application software, the use of dbms can be cost-effective.

Transportability Across Hardware

Another factor to be investigated is whether application software is required to operate on mainframes/minicomputers (which usually offer common operating systems in a product line), as well as on microcomputers that have a different operating system (e.g., MS-DOS). It is generally preferable to use the same application software across all categories of hardware to minimize the substantial system development and maintenance overheads. Since very few packaged solutions perform in both operating system environments, the utilization of the congruous UNIX/XENIX operating system could be researched. Even if microcomputers cannot support the application software, it may be advisable to explore their utility as smart terminals for data entry and editing to decrease the workload on the mainframe and to offer limited local processing.

Cost of Banking Software

The cost of packaged banking/accounting application software packages varies with the operating systems environment. For example, the cost of a microcomputer-based integrated package (in-
Building Strong Management and Responding to Change

including banking functions, G/L, budgeting, accounts receivable/payable, payroll, personnel, inventory, fixed assets) could vary from $20,000 to $50,000. Volume discounts, or an institutional license fee, can be negotiated for multiple copies. Mainframe and minicomputer-based banking packages could cost between $300,000 and $1 million depending on the system engineering, number of software modules and hardware units, functionality, and mode of operation.

Hardware Architecture

After the application systems engineering has been accomplished, a generic hardware architecture should be developed in accordance with projected workloads, capacity analysis, and data linkages between processing nodes. The architecture should accommodate and support the operation of the application software at each class of location (e.g., headquarters, regional offices, large/small branches). The hardware dimensioning and sizing (number of terminals or microcomputers at each location, number of mainframe or minicomputer central processors, on-line disk storage, line printers, etc.) should be indicative and not restrictive and should be in sufficient detail to guide the vendors in their design of the best solution.

In some developing countries it may be more cost-effective to utilize microcomputers (either in stand-alone mode or connected to a file server through a local area network), rather than a minicomputer or a mainframe. The tradeoffs are efficiencies in computing commensurate with available manpower resources, processing throughputs, and integration of customer data bases. The decision should also be influenced by the quality of vendor maintenance services and the local expertise available to support a sophisticated hardware and software solution.

Data Transfer Between Processing Locations

The data transfer mechanisms between each processing location and the data updating techniques should be delineated in the architecture. For example, transaction data may be transferred overnight by diskette, if the telephone lines cannot sustain low transmission error rates. At the other end of the spectrum, a dedicated switched/private communication network using leased lines or satellite transmissions may be employed for high speed data transfers. Another alternative could entail the use of existing public or private networks (e.g., electronic fund transfer networks or Giro) through a rental or leasing arrangement. The decision on the telecommunications networking will be influenced by the quality of digital data transmission, the availability of lines and their costs, the utility of packet-switching techniques, and the institutional preference for centralized/decentralized maintenance of customer files.

Backup Processing Arrangements

In a banking environment, especially if debits/credits and account information are to be handled on-line, appropriate disaster recovery and backup arrangements are essential. These arrangements could include the installation of back-to-back machines in the computer room to support continuous on-line operations if one machine is inoperative for a substantial period. The second machine could be smaller and be configured to support uninterrupted operations of the critical customer-related applications, albeit with a reduced service level or degraded response time. In this case, the smaller machine could be utilized for system/program development and maintenance to avoid overloading the main machine. They could also include agreements with other institutions with compatible mainframe hardware to utilize their equipment, during off-peak hours, in the event of extended downtime or a catastrophic failure/fire/earthquake, and the like; and the installation of a complementary machine at another location with suitable high-speed communication linkages and crossover switches.

Computer Room Facilities

Financial institutions also need to invest in effective security measures and controls to guard against loss or inadvertent or deliberate falsification and tampering with the computer-based records and transactions. Appropriate controls and a secure physical computer room facility should be instituted to protect against damage or unauthorized access. A periodically updated copy of the customer data base (and other critical files) should be maintained at a separate location to allow regeneration of lost or damaged files and to facilitate continued operations and data reconciliations in emergency situations.

The necessity of constructing or rehabilitating the computer room, to ensure optimal environ-
mental conditions for mainframe computer operations, is sometimes overlooked. Lack of appropriate facilities can result in excessive hardware breakdowns/downtime. The requirements include adequate air conditioning, humidity control, dustproofing, raised flooring, acoustical tiles, controlled computer room access, voltage regulators, standby generators, magnetic tape storage vaults or rooms, etc. The expenditure of retrofitting a computing facility for a reasonably large mainframe computer can range from $300,000 to $1 million (these estimates exclude the structural construction costs). Environmental requirements for minicomputers are not as stringent, while microcomputers can be operated in office environments; however, for both types of equipment, power stabilizers may be required if voltage fluctuations and "blackouts" are encountered frequently.
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