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RISK IN THE BANKING SYSTEM - THE ROLE OF CENTRAL BANKS

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1 - INTRODUCTION

The past decade has seen dramatic losses in the banking industry. Firms that had been performing well suddenly announced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and control systems.

The purpose of the present paper is to report the state of risk management techniques in the industry and the role of the Central Banks to perform an effective supervision of banking institutions.

This report can not recite a litany of the approaches used within the industry, nor can it offer an evaluation of each and every approach. Rather, it reports the standard of practice and evaluates how and why it is conducted in the particular way chosen. But, even the best practice employed within the industry is not good enough in some areas. Accordingly, critiques also will be offered where appropriate.

The paper also includes a discussion on the problems which the banking industry finds most difficult to address, shortcomings of the current methodology used to analyze risk and the elements that are missing in the current procedures of risk management and risk control.

2 - DEFINITION OF RISK

We define **risk** as the **degree of uncertainty of future net returns**. This uncertainty takes many forms, which is why most participants in the financial markets are subject to a variety of risks. A common classification of risks is based on the source of the underlying uncertainty:

- **credit risk** estimates the potential loss of the inability of a counterpart to meet its obligations;
- **operational risk** results from errors that can be made in instructing payments or settling transactions;
- **liquidity risk** is reflected in the inability of a firm to fund its illiquid assets;
- **market risk** involves the uncertainty of future earnings resulting from changes in market conditions (e.g., prices of assets, interest rates, etc.).

A deeper discussion about the above classification will be seen in the next section.

3 - DIFFERENT KINDS OF RISK INCURRED BY FINANCIAL INSTITUTIONS

3.1 - Risks in Banking

Banking, by its nature, entails taking a wide array of risks. Banking supervisors need to understand these risks and be satisfied that banks are adequately measuring and managing them. The key risks faced by banks are discussed below:

3.1.1 - Credit Risk

The extension of loans is the primary activity of most banks. Lending activities require banks to make judgements related to the creditworthiness of borrowers. These judgements do not always prove to be accurate and the creditworthiness of a borrower may decline over time due to various factors.

Consequently, a major risk that banks face is credit risk or the failure of a counterpart to perform according to a contractual arrangement. This risk applies not only to loans but to other on- and off-balance-sheet exposures such as guarantees, acceptances and securities investments. Serious banking problems have arisen from the failure of banks to recognize impaired assets, to create reserves for writing off these assets, and to suspend recognition of interest income when appropriate.

Large exposures to a single borrower, or to a group of related borrowers are a common cause of banking problems in that they represent a credit risk concentration. Large concentrations can also arise with respect to particular industries, economic sectors, or geographical regions or by having sets of loans with other characteristics that make them vulnerable to the same economic factors (e.g. highly-leveraged transactions).

Connected lending - the extension of credit to individuals or firms connected to the bank through ownership or through the ability to exert direct or indirect control - if not properly controlled, can lead to significant problems because determinations regarding the creditworthiness of the borrower are not always made objectively. Connected parties include a bank's parent organization, major shareholders, subsidiaries, affiliated companies, directors, and executive officers. Firms are also connected when they are controlled by the same family or group.

In these, or in similar, circumstances, the connection can lead to preferential treatment in lending and thus greater risk of loan losses.

3.1.2 - Country and Transfer Risk

In addition to the counterpart credit risk inherent in lending, international lending also includes country risk, which refers to risks associated with the economic, social and political environments of the borrower's home country. Country risk may be most apparent when lending to foreign governments or their agencies, since such lending is typically unsecured, but is important to consider when making any foreign loan or investment, whether to public or private borrowers. There is also a component of country risk called "transfer risk" which arises when a borrower's obligation is not denominated in local currency. The currency of the obligation may become unavailable to the borrower regardless of its particular financial condition.

3.1.3 - Market Risk

Banks face a risk of losses in on- and off-balance-sheet positions arising from movements in market prices. Established accounting principles cause these risks to be typically most visible in a bank's trading activities, whether they involve debt or equity instruments, or foreign exchange or commodity positions. One specific element of market risk is foreign exchange risk. Banks act as "market-makers" in foreign exchange by quoting rates to their customers and by taking open positions in currencies. The risks inherent in foreign exchange business, particularly in running open foreign exchange positions, are increased during periods of instability in exchange rates.

3.1.4 - Interest Rate Risk

Interest rate risk refers to the exposure of a bank's financial condition to adverse movements in interest rates. This risk impacts both the earnings of a bank and the economic value of its assets, liabilities and off-balance-sheet instruments. Interest rate risk can arise in both the banking and trading book. The primary forms of interest rate risk to which banks are typically exposed are:

- **repricing risk**, which arises from timing differences in the maturity (for fixed rate) and repricing (for floating rate) of bank assets, liabilities and off-balance-sheet positions;
- **yield curve risk**, which arises from changes in the slope and shape of the yield curve;
- **basis risk**, which arises from imperfect correlation in the adjustment of the rates earned and paid on different instruments with otherwise similar repricing characteristics; and
- **optionality**, which arises from the express or implied options imbedded in many bank assets, liabilities and off-balance-sheet portfolios.

Although such risk is a normal part of banking, excessive interest rate risk can pose a significant threat to a bank's earnings and capital base. This issue is of growing importance in sophisticated financial markets where customers actively manage their interest rate exposure, but it is also a crucial factor in a system where interest rates are being deregulated.

3.1.5 - Liquidity Risk

Liquidity risk arises from the inability of a bank to accommodate decreases in liabilities or to fund increases in assets. When a bank has inadequate liquidity, it cannot obtain sufficient funds, either by increasing liabilities or by converting assets promptly, at a reasonable cost, thereby affecting profitability. In extreme cases, insufficient liquidity can lead to the insolvency of a bank.

3.1.6 - Operational Risk

The most important types of operational risk involve breakdowns in internal controls and corporate governance. Such breakdowns can lead to financial losses through error, fraud, or failure to perform in a timely manner or cause the interests of the bank to be compromised in some other way, for example, by its dealers, lending officers or other staff exceeding their authority or conducting business in an unethical or risky manner. Other aspects of operational risk include major failure of information technology systems or events such as major fires or other disasters.

3.1.7 - Legal Risk

Banks are subject to various forms of legal risk. This can include the risk that assets will turn out to be worth less or liabilities to be greater than expected because of inadequate or incorrect legal advice or documentation. In addition, existing laws may fail to resolve legal issues involving a bank; a court case involving a particular bank may have wider implications for banking business and involve costs to it and many or all other banks; and, laws affecting banks or other commercial enterprises may change. Banks are particularly susceptible to legal risks when entering new types of transactions and when the legal right of a counterpart to enter into a transaction is not established.

3.1.8 - Reputational Risk

Reputational risk arises from operational failures, failure to comply with relevant laws and regulations, or other sources. Reputational risk is particularly damaging for banks since the nature of their business requires maintaining the confidence of depositors, creditors and the general marketplace.

3.2 - Development and Implementation of Prudential Regulations and Requirements

The risks inherent in banking must be recognized, monitored and controlled. Supervisors play a critical role in ensuring that bank management does this. An important part of the supervisory process is the authority of supervisors to develop and utilize prudential regulations and requirements to control these risks, including those covering capital adequacy, loan loss reserves, asset concentrations, liquidity, risk management and internal controls. These may be qualitative and/or quantitative requirements. Their purpose is to limit imprudent risk-taking by banks. These requirements should not supplant management decisions but rather impose minimum prudential standards to ensure that banks conduct their activities in an appropriate manner. The dynamic nature of banking requires that supervisors periodically assess their prudential requirements and evaluate the continued relevance of existing requirements as well as the need for new requirements.

4 - MARKET RISK MEASUREMENT METHODOLOGIES

Measuring the risks associated with being a participant in the financial markets has become the focus of intense study by banks, corporations, investment managers and regulators. Certain risks such as counterparty default have always figured at the top of most banks' concerns. Others such as market risk (the potential loss associated with market behavior) have only gotten into the limelight over the past few years. Why has the interest in market risk measurement and monitoring arisen? The answer lies in the significant changes that the financial markets have undergone over the last two decades.

- **Securitization:** Across markets, traded securities have replaced many illiquid instruments, e.g., loans and mortgages have been securitized to permit disintermediation and trading. Global securities markets have expanded and both exchange traded and over-the-counter derivatives have become major components of the markets.

These developments, along with technological breakthroughs in data processing, have gone hand in hand with changes in management practices—a movement away from management based on accrual accounting toward risk management based on marking-to-market of positions. Increased liquidity and pricing availability along with a new focus on trading led to the implementation of frequent revaluation of positions, the mark-to-market concept.

As investments became more liquid, the potential for frequent and accurate reporting of investment gains and losses has led an increasing number of firms to manage daily earnings from a mark-to-market perspective. The switch from accrual accounting to mark-to-market often results in higher swings in reported returns, therefore increasing the need for managers to focus on the volatility of the underlying markets. The markets have not suddenly become more volatile, but the focus on risks through mark-to-market has highlighted the potential volatility of earnings.

Given the move to frequently revalue positions, managers have become more concerned with estimating the potential effect of changes in market conditions on the value of their positions.

- **Performance:** Significant efforts have been made to develop methods and systems to measure financial performance. Indices for foreign exchange, fixed income securities, commodities, and equities have become commonplace and are used extensively to monitor returns within and/or across asset classes as well as to allocate funds.

The somewhat exclusive focus on returns, however, has led to incomplete performance analysis. Return measurement gives no indication of the cost in terms of risk (volatility of returns). Higher returns can only be obtained at the expense of higher risks. While this trade-off is well known, the risk measurement component of the analysis has not received broad attention.

Investors and trading managers are searching for common standards to measure market risks and to estimate better the risk/return profile of individual assets or asset classes. Notwithstanding the external constraints from the regulatory agencies, the management of financial firms have also been searching for ways to measure market risks, given the potentially damaging effect of miscalculated risks on company earnings. As a result, banks, investment firms, and corporations are now in the process of integrating measures of market risk into their management philosophy. They are designing and implementing market risk monitoring systems that can provide management with timely information on positions and the estimated loss potential of each position.

Over the last few years, there have been significant developments in conceptualizing a common framework for measuring market risk. The industry has produced a wide variety of indices to measure return, but little has been done to standardize the measure of risk. Over the last 15 years many market participants, academics, and regulatory bodies have developed concepts for measuring market risks. Over the last five years, two approaches have evolved as a means to measure market risk. The first approach, which we refer to as the statistical approach, involves forecasting a portfolio's return distribution using probability and statistical models. The second approach is referred to as scenario analysis. This methodology simply revalues a portfolio under different values of market rates and prices. Note that in stress scenario analysis does not necessarily require the use of a probability or statistical model. Instead, the future rates and prices that are used in the revaluation can be arbitrarily chosen. Risk managers should use both approaches—the statistical approach to monitor risks continuously in all risk-taking units and the scenario approach on a case-by-case basis to estimate risks in unique circumstances.

IMPLEMENTING MARKET RISK MANAGEMENT

At all levels of the risk management process, be they individual position (micro), portfolio (macro) or global business lines (strategic), the risk management process should meet a number of attributes:

- **Transparency of risk** is of paramount importance because it is often the unforeseen risks which cause the biggest problems. Risks will not be properly managed if they are not identified.

- **Rigorous risk measurement techniques** are the "science" portion of the discipline. Most of the recent advances have come from understanding how to apply well-known techniques to new areas such as derivatives risk management.
- **Timely, quality information** requires a significant investment in systems architecture to pull together all risk management information together at the corporate level.

4.1 - Asset-Liability Management (ALM)

A well established method of looking at market risks in the banking industry is to forecast earnings under predetermined price/rate market conditions (or scenarios). Earnings here are defined as earnings reported in a firm's Financial Statements using generally accepted accounting principles.

For many institutions the bulk of activities are reported on an accrual basis, i.e., transactions are booked at historical costs +/- accruals. Only a limited number of trading items are marked to market. Yet, the portfolio may be marked to market for footnote disclosure.

Because changes in market rates manifest themselves only slowly when earnings are reported on an accrual basis, the simulation of income has to be done over extended periods, i.e., until most of the transactions on the books mature.

There are two major drawbacks to this methodology:

- It requires projecting market rate developments over extended periods into the future; and
- It supports the illusion that gain and losses occur at the time they show up in the accrual accounts (i.e., when they are realized following accounting principles).

Every investor would agree that the total return on a bond position is the sum of the interest earned and the change in the value of the bond over a given time horizon. Traditional ALM, as a result of accounting conventions, ignores the change in value of the instrument since positions are not marked to market. This has often lead crafty ALM managers to create positions which look attractive on paper because of high net interest earnings, but which would not perform as well if their change in market value were considered.

The distinction between accrual items and trading items and their separate treatment for market risk management has led to significant complications — particularly when transactions classified as "trading items" under generally accepted accounting principles are used to hedge transactions classified as "accrual items". In an effort to overcome this difficulty, many firms — particularly those with relatively large trading books have expanded the market risk approach to also include accrual items, at least for internal risk management reporting. This is done by estimating the fair market value of the accrued items and the changes in their fair value under different short-term scenarios.

Thus we are witnessing the evolution of an alternative to the conventional approach of Asset/Liability Management, the Value-at-Risk approach. It started in pure trading operations, but is now gaining increased following in the financial industry.

The market risk in trading positions is usually measured differently and managed separately. Trading positions are marked-to-market and the market value is then subjected to projections of changes in short-term in rates and prices. This is much less hazardous as rate forecasts are usually limited to short horizons, i.e., the time it should take to close out or hedge the trading position. This is often a shorter period than an illiquid market will allow.

4.2 - Value at Risk (VaR)

The market risk of a portfolio refers to the possibility of financial loss due to the joint movement of systematic economic variables such as interest and exchange rates. Quantifying market risk is important to regulators in

assessing solvency and to risk managers in allocating scarce capital. Moreover, market risk is often the central risk faced by financial institutions. The standard method for measuring market risk places a conservative, one-sided confidence interval on portfolio losses for short forecast horizons. This bound on losses is often called capital-at-risk or value-at-risk (VAR), for obvious reasons.

Value at Risk is an estimate, with a predefined confidence interval, of how much one can lose from holding a position over a set horizon. Potential horizons may be one day for typical trading activities or a month or longer for portfolio management. The methods described in our documentation use historical returns to forecast volatilities and correlations that are then used to estimate the market risk. These statistics can be applied across a set of asset classes covering products used by financial institutions, corporates, and institutional investors.

The theoretical precepts behind Value at Risk are not new. The theory is based on the standard error of a Normal distribution as is Markowitz's portfolio optimization techniques from the 1950s, which have been applied to investment management for some time.

Calculating the VAR or any similar risk metric requires a probability distribution of changes in portfolio value. In most risk management models, this distribution is derived by placing an assumption on:

- how the portfolio function is approximated; and
- how the state variables are modeled.

PRACTICAL USES OF MARKET RISK INFORMATION

Estimating the amount of market risk taken by an institution can serve a number of purposes:

- **Management information.** Senior management is informed of the risks run by the trading and investment operations of the institution. Ideally such information is an integral part of a comprehensive management information system which also covers areas such as credit and operational risk.
- **Setting of limits.** Position limits have traditionally been expressed in nominal terms, futures equivalents, or other denominators unrelated to the amount of risk effectively incurred. Setting limits in terms of Value at Risk has significant advantages. For example, position limits become a function of risk and positions in different markets or products can be compared through a common measure.
- **Resource allocation.** Using Value at Risk information, risk-takers can make more informed decisions about their trading strategies. From a tactical point of view, positions may be taken which maximize the return over risk potential. Strategically, profit objectives across businesses can become a function of the risk incurred. Management can use profit to risk ratios to allocate resources to specific businesses which offer more overall potential in terms of their risk/reward profile.
- **Performance evaluation.** To date, trading and position taking talent have been rewarded to a significant extent on the basis of total returns. Estimated and realized volatility of profits adds an extra dimension to performance evaluation. Ratios of P/L over risk (risk ratio) and of P/L over volatility (Sharpe Ratio) can be combined into what we would define as a trader's efficiency ratio (estimated risk / realized volatility) which measures an individual's capacity to translate estimated risk into low realized volatility of revenues.
- **Regulatory reporting.** Financial institutions such as banks and investment firms will soon have to meet capital requirements to cover the market risks that they incur as a result of their normal operations. The Basle Committee of the BIS has presented proposals to both estimate market risk and define the resulting capital requirements to be implemented in the banking sector. The European Union has approved a directive (EEC 93/6), effective January 1996, that mandates banks and investment firms to set capital aside to cover market risks. Both of these proposals have been the object of heated debates among practitioners. In the United States, the Securities and Exchange Commission is considering imposing market risk disclosure requirements to all entities who file financial statements.

While the latest proposals from the BIS have gone a long way in addressing practitioners' concerns, a number of issues remain unresolved. The BIS proposals will allow banks to use internal models to estimate market risk, but they will also impose stringent quantitative requirements on some of the factors used in these models. First of all, the regulatory framework proposed by the BIS does not reward diversification strategies to any significant extent. Correlations can be applied within but not across asset classes to reduce risk estimates. Furthermore, the BIS has arbitrarily set certain parameters (length of historical window to measure volatility, multiplier between value at risk estimate and capital allocation, and choice of 10 day risk horizon) without any known methodological justification. As a result, the strict application of the current recommendations could lead financial institutions to overestimate market risk and subsequently be overcapitalized.

4.3 - Risk Metrics

Market risk has become one of the most significant concerns of participants in the financial markets. Regulatory agencies, commercial and investment banks, corporates, and institutional investors are all increasingly focusing on the level of market risk incurred by their institutions. Because of the increased attention to risk, in October 1994, J.P. Morgan released **RiskMetrics™**, a market risk estimation methodology which builds on Morgan's market risk management experience, accompanied by volatility and correlation datasets covering the major financial markets.

While most market participants have long focused on trying to quantify credit risks, very few institutions, even in the banking and securities sectors, have developed practical measures of aggregated market risk. Investors and trading managers are looking for common standards to measure market risks to better estimate the risk/return profile of individual assets, asset classes or entire firms. Notwithstanding the external constraints from the regulatory agencies, the management of financial firms has been looking for ways to measure the level of market risk incurred by their businesses given the potentially damaging effect of miscalculated risks on company earnings.

RiskMetrics™ supports a series of VaR methodologies, from the "delta" valuation approach where changes in the value of a position are approximated by a linear function ($VaR = \text{value of position} \times \text{price volatility of instrument}$) to a full simulation approach where all instruments are revalued under different scenarios.

There are two major requirements to setting up a risk management framework, such as RiskMetrics™, to estimate market risks:

- **Quality data** must serve as the basis for estimating sound statistics of future market movements, i.e., volatilities and correlations. Knowledge of the data's properties is paramount and often sheds light on the reliability and performance of market risk estimates. Within the RiskMetrics™ framework, procedures have been implemented to address a number of common data problems. One is the distinction between multiple outliers and influential observations. In other cases, data may not be available because of market closures. Furthermore, data that may include prices and rates recorded at different times, i.e., non synchronous data, may cause covariances to be underestimated. Nevertheless, variance-covariance estimates may be numerically unstable.
- **A comprehensive mapping system** must represent positions in a consistent manner. Although seemingly simple, most practitioners know that the logistical problems of collecting accurate position data within an institution may be overwhelming. The first problem is to obtain accurate position data across different business areas. The second is to agree on a methodology to map positions consistently. In the fixed income world alone, there are various ways to describe the same position and its exposure to risk. A portfolio of bonds may be described in terms of its duration. This concept often is used to estimate risk but suffers from the fact that it only measures changes in value resulting from small parallel yield curve shifts. Positions may also be described as a stream of time dated principal flows. However, that approach does not correctly estimate the impact on risk of coupon flows when they are off current market rates. The method recommended is to decompose all fixed income instruments into their component cash flows and apply estimated volatilities of zero coupon rates to each individual cash flow.

The RiskMetrics™ methodology uses **historical return data** to forecast how the markets are likely to move in the future over a specified horizon. This is a methodological choice. There are various alternative approaches to forecasting future volatility. One is the internal forecast method where market risk professionals are asked for their estimates. The problem with this method is that it is subjective and cannot be practically implemented for a large dataset. A second method is to use implied volatilities and correlations extracted from options prices. The problem with this approach is that quality data is difficult to obtain for a wide range of rates. Good data only exist for derivatives traded on established exchanges. Therefore, RiskMetrics™ volatility and correlation forecasts are based on recently observed price and rate return histories.

The estimates of volatilities and correlations that comprise the RiskMetrics™ dataset assume that changes in prices and yields of financial instruments are **normally distributed**. Given this assumption, volatility is expressed in terms of standard deviation. The RiskMetrics™ approach has been to use 1.65 standard deviations as its measure of risk which encompasses 95% of occurrences. The assumption has two important implications:

- Occurrences outside the 95% confidence interval theoretically occur 1 day out of 20. Therefore, the estimates of volatility will underestimate risk one day a month by an unspecified amount. The simulation of worse case scenario impacts on the value of positions cannot be easily implemented using standard probability distributions. Stress testing scenarios must be run using various assumptions in order to provide risk managers with insights into deviations from normality and cases of event risk.
- Most return distributions have fat tails. RiskMetrics™ takes this into account by allowing volatilities to change daily and using exponential weighting.

4.4 - RAROC 2020Ô

RAROC 2020Ô is an adaptation of Bankers Trust's RAROCÔ (Risk Adjusted Return on Capital) methodology for evaluating risk.

Today's increasingly complex portfolios require the highest levels of sophistication in risk analysis. The traditional tools of portfolio valuation and asset allocation were developed prior to the rapid growth of highly structured products.

New financial products with non-normally distributed returns are being developed daily, and portfolio managers need new tools and methods to evaluate the opportunities and risks they represent. Even relatively simple instruments can reveal surprising performance characteristics when analyzed for their component risks and submitted to stress testing.

RAROC 2020Ô allows the managers to value and track changes in a portfolio over time, measure risk adjusted return, and identify the nature of the risks inherent in the investments.

This method goes beyond the conventional asset allocation approach to portfolio risk to add a new dimension of analysis, viewing holdings in terms of their market risks — equity, interest rate, currency, volatility and commodity — risks that drive pricing and cut across traditional asset class boundaries. These risk factors are then aggregate across the portfolio to provide a highly customized and comprehensive profile of the fund's risk exposures.

RAROC 2020Ô draws on the correlations and volatilities of over 400 risk factors to model the holdings. The method disaggregates the specific holdings into their component risk exposures, calculate the historic volatilities and correlations of these risk factors, and input this history and the fund exposures into a Monte Carlo simulation model that creates scenarios illustrating thousands of potential market conditions. The outcome of this Monte Carlo simulation is a statistical map of potential gains or losses the portfolio could realize.

5 - THE ROLE OF THE BASLE COMMITTEE OF THE BIS AND CENTRAL BANKS ON RISK SUPERVISION

Effective supervision of banking institutions is an essential component of a strong economic environment in that the banking system plays a central role in making payments and mobilising and distributing savings. The task of supervision is to ensure that banks operate in a safe and sound manner and that they hold capital and reserves sufficient to support the risks that arise in their business. Strong and effective banking supervision provides a public good that may not be fully provided in the marketplace and, along with effective macroeconomic policy, is critical to financial stability in any country. While the cost of banking supervision is indeed high, the cost of poor supervision has proved to be even higher.

In drawing up these Core Principles for effective banking supervision the following precepts are fundamental:

- the key objective of supervision is to reduce the risk of loss to depositors and other creditors, and to maintain confidence in the financial system;
- supervisors should encourage and pursue market discipline by encouraging good corporate governance (through an appropriate structure and set of responsibilities for a bank's board of directors and senior management) and enhancing market transparency and surveillance;
- in order to carry out its tasks effectively, a supervisor must have operational independence, the means and powers to gather information both on and off site, and the authority to enforce its decisions;
- supervisors must understand the nature of the business undertaken by banks and ensure to the extent possible that the risks incurred by banks are being adequately managed;
- effective banking supervision requires that the risk profile of individual banks be assessed and supervisory resources allocated accordingly;
- supervisors must ensure that banks have resources appropriate to undertake risks, including adequate capital, sound management, and effective control systems and accounting records; and
- close cooperation with other supervisors is essential and particularly so where the operations of banks cross national boundaries.

Banking supervision should foster an efficient and competitive banking system that is responsive to the public's need for good quality financial services at a reasonable cost.

Generally, it should be recognised that there is a trade-off between the level of protection that supervision provides and the cost of financial intermediation. The lower the tolerance of risk to banks and the financial system, the more intrusive and costly supervision is likely to be, eventually having an adverse effect on innovation and resource allocation.

Supervision cannot, and should not, provide an assurance that banks will not fail. In a market economy, failures are a part of risk-taking. The way in which failures are handled, and their costs borne, is in large part a political matter involving decisions on whether, and the extent to which, public funds should be committed to supporting the banking system. Such matters cannot therefore always be entirely the responsibility of banking supervisors; however, supervisors should have in place adequate arrangements for resolving problem bank situations.

There are certain infrastructure elements that are required to support effective supervision. Where such elements do not exist, supervisors should seek to persuade government to put them in place (and may have a role in designing and developing them). These elements are discussed later.

In some countries responsibility for licensing banks is separate from the process of ongoing supervision. It is clearly essential that, wherever the responsibility lies, the licensing process establishes the same high standards as the process of ongoing supervision which is the main focus of this paper.

The Core Principles of banking supervision set out above and expanded ahead in this document will provide the foundation necessary to achieve a sound supervisory system. Local characteristics will need to be taken into account in the specific way in which these standards are implemented. These standards are necessary but may not be sufficient, on their own, in all situations. Supervisory systems should take into account the nature of and risks involved in the local banking market as well as more generally the local infrastructure. Each country should therefore consider to what extent it needs to supplement these standards with additional requirements to address particular risks and general conditions prevailing in its own market. Furthermore, banking supervision is a dynamic function that needs to respond to changes in the marketplace. Consequently supervisors must be prepared to reassess periodically their supervisory policies and practices in the light of new trends or developments. A sufficiently flexible legislative framework is necessary to enable them to do this.

PRECONDITIONS FOR EFFECTIVE BANKING SUPERVISION

Banking supervision is only part of wider arrangements that are needed to promote financial stability. These arrangements include:

- sound and sustainable macro-economic policies;
- well developed public infrastructure;
- effective market discipline;
- procedures for efficient resolution of problems in banks; and
- mechanisms for providing an appropriate level of systemic protection (or public safety net).

1. Providing sound and sustainable macro-economic policies are not within the competence of banking supervisors. Supervisors, however, will need to react if they perceive that existing policies are undermining the safety and soundness of the banking system. In the absence of sound macro-economic policies, banking supervisors will be faced with a virtually impossible task. Therefore, sound macro-economic policies must be the foundation of a stable financial system.

2. A well-developed public infrastructure needs to cover the following facilities, which, if not adequately provided, can significantly contribute to the destabilization of financial systems:

- a system of business laws including corporate, bankruptcy, contract, consumer protection and private property laws, that is consistently enforced and provides a mechanism for fair resolution of disputes;
- comprehensive and well-defined accounting principles and rules that command wide international acceptance;
- a system of independent audits for companies of significant size so that users of financial statements, including banks, have independent assurance that the accounts provide a true and fair view of the financial position of the company and are prepared according to established accounting principles, with auditors held accountable for their work;
- effective banking supervision (see below);
- well-defined rules governing, and adequate supervision of, other capital markets and, where appropriate, their participants; and,

- a secure and efficient payment and clearing system for the settlement of financial transactions where counterpart risks are controlled.

3. Effective market discipline depends on an adequate flow of information to market participants, appropriate financial incentives to reward well-managed institutions and arrangements that ensure that investors are not insulated from the consequences of their decisions. Among the issues to be addressed are corporate governance and ensuring that accurate, meaningful, transparent and timely information is provided by borrowers to investors and creditors.

Market signals can be distorted and discipline undermined if governments seek to influence or override commercial decisions, particularly lending decisions, to achieve public policy objectives. In these circumstances, it is important that if guarantees are provided for such lending, they are disclosed and arrangements are made to compensate financial institutions when policy loans cease to perform.

4. Sufficiently flexible powers are necessary in order to effect an efficient resolution of problems in banks. Where problems are remediable, supervisors will normally seek to identify and implement solutions that fully address their concerns; where they are not, the prompt and orderly exit of institutions that are no longer able to meet supervisory requirements is a necessary part of an efficient financial system. Forbearance, whether or not the result of political pressure, normally leads to worsening problems and higher resolution costs. The supervisory agency should be responsible for, or assist in, the orderly exit of problem banks in order to ensure that depositors are repaid to the fullest extent possible from the resources of the bank (supplemented by any applicable deposit insurance) and ahead of shareholders, subordinated debt holders and other connected parties.

In some cases, the best interests of depositors may be served by some form of restructuring, possibly takeover by a stronger institution or injection of new capital or shareholders. Supervisors may be able to facilitate such outcomes. It is essential that the end result fully meets all supervisory requirements, that it is realistically achievable in a short and determinate timeframe, and that, in the interim, depositors are protected.

5. Deciding on the appropriate level of systemic protection is by and large a policy question to be taken by the relevant authorities (including the Central Bank), particularly where it may result in a commitment of public funds. Supervisors will also normally have a role to play because of their in-depth knowledge of the institutions involved. In order to preserve the operational independence of supervisors, it is important to draw a clear distinction between this systemic protection (or safety net) role and day-to-day supervision of solvent institutions. In handling systemic issues, it will be necessary to address, on the one hand, risks to confidence in the financial system and contagion to otherwise sound institutions, and, on the other hand, the need to minimize the distortion to market signals and discipline. Deposit insurance arrangements, where they exist, may also be triggered.

5.1 - The Central Bank of Brazil

5.1.1 - Background

The Central Bank of Brazil (BC), created by Law no. 4595, of December 31, 1964, is an autonomous federal institution and part of the National Financial System (SFN). Being the agent of society to promote the stability of the purchasing power of the Brazilian currency, the Central Bank adopts the following objectives:

- to provide the economy with adequate liquidity;
- to maintain the international reserves of the country at adequate levels;
- to promote savings mobilization at adequate levels to finance domestic investment; and
- to foster the stability and to promote the improvement of the National Financial System.

Before the creation of the Central Bank, the Brazilian monetary authorities were the Currency and Credit Superintendence (SUMOC), the Bank of Brazil (BB) and the National Treasury. Together, these entities carried out the functions traditionally attributed to a Central Bank, and other activities, as well.

The SUMOC, created in 1945 with the objective of exercising the monetary control and preparing the basis for a Central Bank, had the responsibility of setting forth the reserve requirements ratio for commercial banks, discount rates (linked to development funds) and financial assistance for liquidity (meaning the discount as a classic instrument of monetary policy), as well as the interest rate on bank demand deposits. At the same time, it supervised the operation of commercial banks, managed the exchange policy and represented the Country at international organizations.

The Bank of Brazil carried out the functions of the government bank: controlling foreign trade operations, executing foreign exchange operations on behalf of public sector enterprises and the National Treasury, executed the rules set forth by the SUMOC and the Bank for Agricultural, Industrial and Commercial Credit, as well as receiving reserve requirements and voluntary deposits of commercial banks.

The National Treasury was the currency issuing authority, but the issuing process was a complex one involving several governmental entities.

Although some improvement has been reached, the institutional process was not complete. The Central Bank became the currency issuing bank, but acted according to the needs of the Bank of Brazil. It was also the bank of banks, but was not the sole holder of the financial institutions' deposits because the institutions placed their voluntary reserves in the Bank of Brazil. Besides, the Central Bank was the government's financial agent, in charge of managing the federal public debt, but was not the cashier to the National Treasury, since this was a function of the Bank of Brazil.

In 1985, the decision was made towards a financial reorganization of the government, with a breaking down of the accounts and functions of the Central Bank, the Bank of Brazil and the National Treasury. In the 1986 fiscal budget, not only all the revenues and expenditures of the National Treasury were included, but also all the accounts of fiscal nature that were under the Monetary Budget. In 1986, the "movement provisional account" was extinguished and, from then on, the disbursement of funds from the Central Bank to the Bank of Brazil were clearly identified in the budgets of each institution, eliminating the automatic transfers that hampered the management by the Central Bank.

In a process that continued through 1988, the functions of monetary authority were progressively transferred from the Bank of Brazil to the Central Bank, while the atypical activities carried out by the latter, such as those related to economic incentives and the administration of the federal public debt, were transferred to the National Treasury.

The 1988 Constitution sets down Central Bank's matters, such as the exclusive attribution of the Union to issue money, the need to submit persons appointed by the President of the Republic to be president and director of the Central Bank to prior approval by the Senate, and the prohibition to direct or indirect granting of loans to the National Treasury. The 1988 Constitution also establishes the drawing up of a Complementary Law of the National Financial System, to substitute Law no. 4595, dealing with varied and important aspects of the structure and activities of the Central Bank.

5.1.2 - Organization

The Central Bank is governed by a Board of Directors composed of a Governor and Directors who are responsible for specific areas of operation such as: Administration, Supervision, International Affairs, Financial System Regulation and Organization, Economic Policy and Monetary Policy.

The management structure of the Central Bank is organized in special and central unities (departments) and regional offices. The Governor and each Director manage a group of these unities, arranged according to the above mentioned areas:

- The President Office
 - Legal Department - DEJUR;
 - Internal Auditing Department - DEAUD;
 - Executive Secretariat - SECRE.
- Administration
 - Department of Planning and Organization - DEPLA;
 - Department of Human Resources Administration - DEPES;
 - Department of Material Resources Administration - DEMAP;
 - Financial Administration Department - DEAFI;
 - Department of Information Systems Management - DEINF;
 - Currency Management Department - MECIR.
- Supervision
 - Department of Supervision and Inspection - DEFIS;
 - Department of Control of Administrative Processes and Special Systems - DEPAD;
- International Affairs
 - Exchange Department - DECAM;
 - Department of International Organizations and Agreements - DEORI;
 - Foreign Capital Department - FIRCE;
 - Department of International Reserves Operations - DEPIN;
 - Foreign Debt Department - DEDIV.
- Financial System Regulation and Organization
 - Department of Records and Information - DECAD;
 - Department of Financial System Regulation - DENOR;
 - Department of Financial System Organization - DEORF.
- Economic Policy
 - Economic Research Department - DEPEC.
- Monetary Policy
 - Department of Banking Operations - DEBAN;
 - Department of Open Market Operations - DEMAB.

- Restructuring of State's Financial System and Public Debt of States, Federal District and Municipalities
 - Internal Public Debt Department - DEDIP.

Regional Offices

Subordinated directly to the President, at the state level, they are charged with implementing decisions.

- Regional Office in Belém - DEBEL (state of Pará): serving the states of Acre, Amapá, Amazonas, Pará, Rondônia e Roraima;
- Regional Office in Belo Horizonte - DEBHO (state of Minas Gerais): serving the states of Minas Gerais, Goiás and Tocantins;
- Regional Office in Curitiba - DECUR (state of Paraná): serving the states of Paraná, Mato Grosso and Mato Grosso do Sul;
- Regional Office in Fortaleza - DEFOR (state of Ceará): serving the states of Ceará, Maranhão and Piauí;
- Regional Office in Porto Alegre - DEPAL (state of Rio Grande do Sul): serving the states of Rio Grande do Sul and Santa Catarina;
- Regional Office in Recife - DEREK (state of Pernambuco): serving the states of Alagoas, Paraíba, Pernambuco and Rio Grande do Norte;
- Regional Office in Rio de Janeiro - DERJA (state of Rio de Janeiro): serving the states of Rio de Janeiro and Espírito Santo;
- Regional Office in Salvador - DESAL (state of Bahia): serving the states of Bahia and Sergipe;
- Regional Office in São Paulo - DESPA (state of São Paulo).

5.1.3- Major Functions

Pursuant to the set of legal attributions and regulations, the Central Bank's functions are:

- formulating, implementing and monitoring the monetary policy;
- formulating, implementing and monitoring the credit policy;
- formulating, implementing and monitoring the exchange and international financial transactions policy;
- organizing, regulating and monitoring of National Financial System;
- issuing notes and coins and servicing the supply of currency, storage and distribution.

5.1.3.1. Monetary Policy

The objective of the monetary policy is to control the expansion of the money supply and credit and manage the interest rate, adjusting them according to the needs of economic sustainable growth and price stability. Toward these ends, the following classical instruments are used:

- open market operations;
- reserve requirements; and
- financial assistance for liquidity.

Among them, the open market operations option is the most frequently used tool due to its greater versatility in accommodating the daily variations in liquidity. The level of reserve requirements is used to impact the availability of bank reserves and control the expansion of the monetary aggregates, acting upon their multiplication is the second. Finally, the interest rate charged for the discount window determines the cost of non-compliance with the financial requirements, which in turn influences the interaction among the financial agents. Through the use of these instruments, the Central Bank intervenes in the availability and cost of the bank reserves, ultimately determining the prevailing credit and monetary conditions of the economy.

To better understand the actions of the Central Bank, it is important to have a general view of the monetary policy and, in particular, to understand how the bank reserve mechanism works, which will be briefly described below.

Bank reserve mechanism

The operations carried out by any economic agent with a financial institution use currency, checks or electronic transfer of funds. The deposit accounts of these agents at the institution is modified as a result of these operations.

In the same way that individual, corporations and governments maintain demand deposit accounts at a financial institution, through which they make and receive payments, as well as carry out other financial operations, banks also have current accounts at the Central Bank, through which credits and debits from other financial institutions, the National Treasury and the Central Bank itself are made. In other words, it is through this account that the financial institutions carry out their operations.

When someone opens either a demand deposit or savings account, or purchases a private bond, the transaction may be carried out in cash. These operations increase the volume of the deposits. Should the bank deem it above the adequate level, it will transfer the excess funds to the Central Bank, since cash is used only as a means of exchange.

In the same way that someone's account is credited when a cash deposit is made, banks that transfer excess funds to the Central Bank receive a corresponding credit in their respective bank reserves account held at the Central Bank. If a withdrawal is made, a debit is registered for that account. Likewise, when banks request funds to the Central Banks, a debit is made in their bank reserves account.

If, instead of using cash, an individual carries out a given financial operation by check, and it is deposited in a bank other than where this person holds an account, the transfer of funds will occur the following morning, after the clearing done the night before. If the check is issued as payment to third parties for the purchase of notes or the opening of a new account, the procedure will be the same. Financial transactions carried out by check result in a mere transfer of funds from the bank reserves account of one institution to the bank reserves account of the other where the check was deposited.

It is noteworthy that the balance of the bank reserves account of each financial institution is affected daily, either positively or negatively, depending on the operations carried out by itself or its clients. The institutions adjust their balances among themselves through the financial mechanisms available on the market.

It is important to point out, however, that the financial dealings of society, including the non-banking financial institutions, are able to influence the individual bank reserve balances, but are unable to alter the balance of the bank reserves as a whole. In other words, the level of these reserves is not affected, in the very short run, by the financial operations. Since the monetary base is the sum of the currency issued by the Central Bank and the balance of the bank reserves account, it is also not affected in the short run, which means that the system neither creates nor depletes reserves, as long as there is a transfer of funds among the economic agents.

In the daily occurrence of profit and losses in the bank reserve balances of the financial institutions, the Central Bank's requirements are subject to surpluses and deficits, meaning that these balances may be above or below the minimum reserves requirements for each account. This explains the "overnight" exchange of bank reserves

among institutions, backed by government notes, since on the following day, new financial transactions will affect the balances of the banking institutions.

Since the system as a whole cannot create or deplete bank reserves, which explains why the consolidated balances of the institutions is not affected, it is up to the Central Banks to control the liquidity, because it is the only institution that can create or deplete bank reserves in the very short run. In the longer run, a change in the individual preference for currency may also contribute towards the creation or depletion of bank reserves.

5.1.3.1.2. Open market operations

The control of liquidity through open market operations consists of the buying and selling of National Treasury Bonds (BTN), either from the Central Bank's portfolio or new issuance, or bonds issued by the Central Bank.

In executing monetary policy, the Central Bank selling of bonds to the banking system leads to a reduction in the bank reserves, the opposite occurring for the purchase of bonds. The control over the issuance of paper currency and the bank reserves (which form the monetary liability of the Central Bank or the monetary base) results in the control over the money supply (currency outside banks and demand deposits in the financial institutions). In a general sense, a relatively stable relationship is expected between money supply and the monetary base.

There are two types of buying / selling of bonds by the Central Bank: committed operations and definite operations. In the committed operations, the Central Bank borrows / lends funds for a specified term - usually one day (overnight) - selling / buying bonds under the commitment to repurchase / resell them at a previously established date and price. In this type of operation (called informal auction or "go-around"), the Central Bank taps the market through institutions called "dealers", periodically assigned by the Central Bank and selected among those more active in the financial system.

In the definite operations, the bond becomes part of the portfolio of the buyer. The definite sale / purchase by the Central Bank is done through formal and informal auctions, in which all financial institutions can participate. The informal auctions are held over the telephone only with the dealers, while the formal ones are done through formal proposals. Nowadays, the formal auctions of Central Bank Bonds are held weekly, on the business day before Wednesday. The National Treasury Bonds auctions are generally held on the last business day of the month. The Central Bank places in the formal auctions the newly issued bonds (primary market) as well as those held in its portfolio and, therefore, maturing.

The daily liquidity settlement is done through the committed operations with several interventions by the Central Bank. The process may be summed up as follows: before the market opens, the Central Bank estimates if there is an excess / lack (the Central Bank is undersold / oversold) of reserves in the banking system. This estimate is based on operations that affect the Bank Reserves and obtained through consultations with various sources, among which the dealers. The most important items are:

- issuing or collection of currency;
- operations with gold or foreign exchange;
- tax collection;
- expenditures of the National Treasury;
- transfers from the Credit Operations Official Budget or the General Federal Budget;
- financing granted to or obtained by banks and respective return;
- redemption and placement of public bonds;
- extra-market operations;

- collection or release of reserve requirements for: the Financial Investment Funds (FIF), the funds in the Brazilian Savings and Loans System (SBPE), the long-term deposits, the exchange acceptances and debentures;
- withdrawals or deposits over the floating average of reserve requirements in the bank reserves account of banks at the Central Bank.

As was previously explained, the Central Bank monitors the Bank Reserves market so as to adjust the liquidity in the banking system daily. For example, should the National Treasury incur expenditures or the Central Bank settle transactions involving foreign currency, there is a need to compensate the expansion of bank reserves by obtaining the surplus resources. This is done through the sale of bonds that can be repurchased. This is the same procedure adopted by all other Central Banks in the open market. By the same token, when there is a momentary lack of reserves, caused by a significant increase in federal tax revenues or by the selling of foreign currency by the Central Bank, a purchase of bonds that can be resold the following day takes place.

Considering this estimate, as well as other factors, such as interest rates in the forward market, the rate of inflation and its forecast and the current monetary policy, a desired interest rate is established, which is normally conveyed to the market through a "go-around". At the end of the day, a fine adjustment of reserves is made, which consists of a neutralization of eventual imbalances caused by the auction described above.

In the execution of monetary policy, all the open market operations, backed by public bonds, are done through the Special System of Clearance and Custody (SELIC), a data processing system set up to register all transactions involving public securities on the open market. Operations not conducted directly with the Central Bank, involving private and some state bonds, are settled through the Bond Custody and Financial Clearance Center (CETIP), a system analogous to the SELIC.

5.1.3.1.3. Reserve requirements

To execute monetary policy through reserve requirements, the monetary authorities imposed that some financial institutions - specifically commercial, savings and multiple service banks that hold commercial portfolios - keep a portion of their demand deposits at the Central Bank. This international practice prevents the financial institutions, that receive demand deposits, from lending these funds indefinitely to the public, determining that demand deposits be a multiple of both their reserve requirements and their voluntary reserves.

The reserve requirements on demand deposits and bank float (third party resources in transit, notice deposits, levying and collection of taxes and cashiers checks) represent the most traditional instrument of monetary policy, given the structural impact it has on the total level of bank reserves. This instrument is a result of the exclusive capacity that the financial institutions that hold demand deposits have to create "book" money, granting credit to their clients directly into their accounts. With the granting of credit in demand deposit accounts, a banking institution creates money supply, that when used by the borrower generates new deposits, which in turn have the capacity of generating new credit, and so on.

The repetition of this mechanism shows the multiplicative capacity of money in the banking sector. Aiming at reducing this capacity, the Central Bank then requires that a certain amount of the demand deposits and other accountable headings remain deposited with the monetary authority. This mandatory measure defines both the average and minimum balances that the banks must keep, is cash, deposited at the Central Bank.

In the same way as the demand deposits, the balances deposited at the Central Bank do not accrue interest. Therefore, the banks meet the imposed monetary control requirement within what is strictly necessary, because it represents a cost that must be minimized.

Institutions may be subject to keep at the Central Bank up to 100% of their demand deposits and 60% of their other accountable headings, either by subscription or purchase of federal bonds, or by cash deposit. Within these limits, the Central Bank can establish different percentages according to the geo-economic regions, the priority

given to the various investment options and the type of financial institutions. As of July, 1994, the Real became the new currency and the Central Bank set new rules on the subject.

5.1.3.1.4. Financial assistance for liquidity

Another monetary policy tool is the liquidity loan that the Central Bank can use to provide assistance to financial institutions, to meet circumstantial and brief liquidity problems these institutions may have. This is a classical instrument of monetary policy that is related to one of the basic functions of the Central Bank as a lender of last resort.

The liquidity loan's main objective is to avoid the spreading of eventual imbalances in any given institution throughout the system. This way, an institution that, on a given day, does not meet its reserve requirements, must resort to the Central Bank. The loan is granted for one day, backed by real collateral at the highest interest rate on the market, as a penalty.

As of November 1995, with the creation of the Program of Incentives to the Restructuring and Strengthening of the National Financial System (PROER), the financial system has a new liquidity assistance mechanism. The Program consists of granting financial assistance to institutions engaged in administrative, operational, or societal reorganization processes that turn out shareholding transfers (merger and acquisition).

5.1.3.2. Credit Operation Control

The Central Bank announces the decisions of the National Monetary Council, sets forth complementary regulations and controls and supervises all forms of credit operations. In accordance with the objectives set forth by the economic policy, it can even limit the credit extended to the public sector, by monitoring the compliance with the ceilings established for its debts to the financial system. Similar procedure can be adopted for the private sector.

5.1.3.3. Foreign Exchange Policy and International Financial Relations

In the international area, the attributions of the Central Bank are to:

- ensure the regular functioning of the foreign exchange market, the relative stability of the exchange rates and the balance of payments equilibrium, having the power to buy and sell gold and foreign currency and carry out credit operations abroad for that matter;
- manage the nation's foreign exchange reserves;
- secure loans and place bonds abroad as the agent of the federal government;
- monitor and control capital flows, including those related to agreements with international organizations and the recovery of Brazilian government credits abroad; and
- represent the Brazilian government in negotiations with both international financial institutions and international organizations.

This way, besides executing the foreign exchange policy, ensuring its coherence with the monetary policy, the Central Bank also seeks to manage the international reserves to ensure liquidity, security and maximum yields. The Central Bank also sets forth the regulation on both foreign trade and capital flows. It is also responsible for the country's international financial relationship with the rest of the world.

5.1.3.3.1. Foreign exchange regulation

The Brazilian foreign exchange policy allows for an exchange rate determined by the market. In other words, the price of the US dollar in local currency is determined by the supply / demand of dollars. The foreign exchange market agents on the supply side are tourists, exporters of goods and services, foreign investors, loans and

financing from abroad. On the demand side the agents are tourists, Brazilian investors abroad, importers of goods and services, foreign investors repatriating capital, remitting profits or dividends, repaying principal or paying interest on loans or financing obtained abroad.

This is called the free floating exchange rate market or commercial rate market. The banks that are authorized to deal in foreign exchange mediate the supply and demand of foreign currency of their clients. The Central Bank - in executing the foreign exchange policy - acts in the interbank market seeking, above all, the relative stability of the exchange rate. It may acquire surpluses avoiding an overvaluation or supply eventual needs, avoiding devaluation keeping in mind the objectives of monetary policy.

In the floating rate market, eventual interventions by the Central Bank can become a powerful tool against speculation, contributing to the dissociation between economic facts and political scenario and neutralizing any attempt to manipulate the market.

In March 1995 the foreign exchange rate system was changed to a band system, within which the foreign exchange rate fluctuates. The Central Bank intervention occurs through electronic selling / buying bids whenever the market rate reaches the ceiling / floor of the band. There may also be interventions within the band so as to prevent undue fluctuations.

In both markets, the Central Bank's actions are carried out by the accredited dealers selected from banks that deal in foreign exchange, based on the total volume of their transactions with clients and in the interbank market. The Central Bank's interventions are carried by auctions. The dealers' main purpose is to guarantee liquidity to the interbank market and individual clients, and their participation is mandatory every time the Central Bank holds auctions.

Apart from the operations mentioned above, the Central Bank also performs gold arbitrage against the US dollar with banks in the country, aiming at maintaining the parity between its international and domestic price, minimizing price distortions that could stimulate any deviation in the national production of gold.

The close relationship between the monetary and foreign exchange policies must be pointed out. Whenever the Central Bank intervenes in the foreign exchange market, buying / selling foreign currency against local currency, it does so through credits and / or debits in the bank reserves account of the institution that respectively bought and / or sold such funds. Therefore, in the first case there is an expansion of the monetary base, while in the second there is a contraction.

The Central Bank's actions also include the:

- permanent follow-up of the practices adopted by the market agents, conducting studies and analyses on the behavior and tendencies of the various free and floating markets;
- monitoring of foreign exchange operations on a national level to inhibit any irregular transactions and to guide the actions of the agents on the market;
- improvement of the applicable foreign exchange market regulation as well as the permanent revision of those already in effect, to update the instruments and practices adopted by the institutions intervening on the market; and
- leading administrative inquiries against individuals and institutions that may eventually engage in any illegal activity on the foreign exchange market.

It is also worth mentioning the transfer of funds abroad by way of accounts in Brazilian currency. Depositing national currency in an account at financial institutions abroad is freely allowed. These funds can be used to acquire foreign currency in Brazil. At a later date, these funds may be transferred to an account abroad. That is why the same basic documentation that would be required for transactions involving the transfer of foreign currency must also be presented for national currency transfers, along with proof of payment of any applicable

taxes. These operations must be registered at the SISBACEN (Information System of the Central Bank), identifying the buyer, the recipient abroad, the overseas institution involved and the purpose of the transfer of funds.

5.1.3.3.2. International reserves management

Variations in the international reserves held at the Central Bank occur basically as a result of the buying / selling of currency on the exchange market, the balance between imports / exports and the difference between financial transactions (buying / selling). However, the increase or decrease that occurs in the international reserves is not exactly equal to the auctions: buying / selling. This is because there are direct operations carried out by the Central Bank, such as:

- the servicing of the external debt deposited at the Bank;
- those having to do with the International Monetary Fund;
- credits / debits related to bilateral agreements; and
- the receipts from reserve deposits abroad, among others.

It is the exclusive function of the Central Bank, according to Law no. 4595, to safeguard the official gold reserves, foreign currency reserves and Special Drawing Right. Therefore, the Central Bank manages these reserves in the international financial markets in different fixed term deposits, foreign government bonds, gold and other highly secure and liquid financial assets. To best manage these funds, all the short, medium and long-term commitments of the Bank are considered, as well as the forecast of receipts and expenditures of the foreign exchange market as a whole.

Another aspect that must be considered by the Central Bank is the minimum level of international reserves that the country must maintain. The Federal Senate, by way of resolution no. 82, of December 18, 1990, establishes that the minimum level of international reserves must be worth the average monthly level of imports of the previous 12 months, for a minimum period of 4 months.

5.1.3.3.3. Capital flows monitoring

Foreign capital are goods or funds belonging to residents abroad that enter the country.

Foreign capital may enter the country either as investment or credit. Investments are represented by shares in companies installed in Brazil, and may be acquired directly or through the stock market. Credits may be classified either as loans, direct lending or financing, imported machinery or equipment to be paid for over time, depending on how the funds are brought into the country. The sum of the unpaid balance of loans and financing corresponds to the total foreign debt.

In these items are included, for example, the disbursements and principal payments (excluding interest payments) made to international organizations such as the World Bank and the Inter-American Development Bank, government agencies such as the American and Japanese Export-Import Banks (Eximbanks), and the payments to the foreign creditors (commercial banks and official credit agencies - Paris Club) pursuant to the external debt rescheduling agreement.

Law no. 4131, of September 03, 1962, determines that inflow and outflow of foreign capital, as well as their remuneration, be registered at the Central Bank. Registration serves to monitor the behavior of these flows so as to detect any possible irregularities and principally to update the regulation on the various forms of foreign capital flows.

Brazilian investments abroad and leasing operations are also registered at the Central Bank, including the leasing of equipment and the hiring of various services, such as those involving the transfer of technology, rendering of technical services and payment of royalties.

5.1.3.3.4. Relations with international organizations and Latin America

Brazil is a member of several international financial organizations participating both as a lender and a borrower. The Central Bank is the liaison agency between the Brazilian Government and the main organizations, among them:

- the International Monetary Fund (IMF);
- the World Bank Group, composed of:
 - the International Bank for Reconstruction and Development (IBRD);
 - the Agency for International Development (AID);
 - the International Finance Corporation (IFC); and
 - the Multilateral Investment Guarantee Agency (MIGA).
- the Inter-American Development Bank Group - composed of :
 - the Inter-American Development Bank itself;
 - the Inter-American Investment Corporation (IIC);
 - the Multilateral Investment Fund (MIF) - administrated by the IDB.
- the African Development Bank Group - composed of:
 - the African Development Bank itself; and
 - the African Development Fund (ADF).
- the Plata Basin Development Fund (Fonplata);
- the International Fund for Agricultural Development (IFAD); and
- the World Trade Organization (WTO).

In carrying out these duties, the Central Bank analyses and provides the technical basis for the negotiation of capital replenishment or increase as well as the joining of new organizations, the most recent one being the adhesion to Corporación Andina de Fomento (CAF), in October 1995, which is now in Congress to undergo ratification. The local and foreign currency accounts used for the receipt from and disbursement to these organizations are held at the Central Bank. Besides, it informs the Brazilian business community of export opportunities resulting from projects to be financed by these organizations around the world.

5.1.3.3.5. Participation in the Mercosur integration process

The Asuncion Treaty signed on March 26, 1991 by the Presidents of Argentina, Brazil, Paraguay and Uruguay, established the guidelines for a common market which was set up on December 31, 1994 - the Mercosur. It designated the Central Bank as a member of the Common Market Group. The later is an executive agency that coordinates the work of technical subgroups.

Apart from the participation in the Common Market Group, the Central Bank coordinates subgroup no. 4, which deals with the fiscal and monetary policies related to trade. This subgroup is linked to the Common Market Group of the Mercosur and is responsible for issues related to Central Banks, such as exchange rates, capital flows, financial systems, capital markets, insurances, the promotion and the protection of investments.

The first phase of the integration process has come to an end, as the Free Trade Area and the Customs Union partially came into operation on the 1st of January, 1995. The Mercosur promoted changes in its institutional framework, in order to consolidate the process. The new structure kept subgroup no. 4 - now denominated the Subgroup for Financial Affairs, the macroeconomic indicators where included as part of the subgroup's responsibilities, as subgroup no. 10, previously in charge of them, was extinguished.

The trade of goods was the biggest concern throughout the first phase of the process. In the services area, many important steps were taken regarding the analyses of the differences in the existing legislation of all members on the matter. In the second phase progress will probably be obtained in the field of financial services.

5.1.3.3.6. External debt rescheduling

In the scope of the Country's relationship with the international financial community, the Central Bank has been, since 1982, conducting the renegotiation process and the implementation of restructuring agreements related to the Brazilian foreign debt with the participation of over eight hundred international creditors, both governmental (Paris Club) and private institutions (commercial banks).

Upon the implementation of the "1992 Brazilian Financing Plan", negotiated with the private international creditors, and the consequent exchange of the public foreign debt into bonds issued by the Republic ("Brady Plan"), and after the signature of the bilateral agreement pursuant to the Paris Club, the amounts deposited with the Central Bank relatively to the foreign public liabilities were transferred to the National Treasury. As of the date of such transfer, the National Treasury became responsible for the fulfillments of the financial obligations, and the Central Bank has remained as the agent for the implementation and administration of the agreements for the external debt, including the effecting of payments, besides other obligations defined in such agreements.

The Central Bank has also been carrying out studies concerning the management of the Country's foreign debt and its general financial foreign obligations for the purpose of subsidizing the government's medium and long-terms strategies. Furthermore, the Central Bank has been in charge of the recovery of the official credits granted by Brazil to several foreign countries.

5.1.3.4. National Financial System Supervision

The Central Bank seeks to improve the standard of financial institutions, ensuring their liquidity and solvency and seeking an adequate relationship among financial instruments to increase the efficiency of the National Financial System. It is the responsibility of the Central Bank to:

- formulate the regulation applicable to the National Financial System;
- grant authorization for the functioning of financial institutions and other entities, according to the legislation currently in effect; and
- regulate and supervise the activities of financial institutions and other entities duly authorized to operate.

As in any other country, the regulatory activities concerning the operation of the financial institutions and instruments aim at protecting the public interest and make sure that the financial system operates abreast the other sectors of the economy. Under the guidelines of the National Monetary Council, the Central Bank sets forth regulations such as resolutions, memoranda and others compiled in manuals to be used by both its staff and the public in general, such as the Norms and Instructions Manual (MNI), the Rural Credit Manual (MCR), the Consolidation of Foreign Exchange Regulations (CNC), and the Accounting Plan for Institutions under the National Financial System (COSIF).

The supervisory activity may be directly performed - by means of on-site inspection to check the institution's soundness as well as the compliance with the legal and regulatory aspects of operations, register and control - and indirectly performed - by means of an internal and systematic checking of information supplied by the institutions to the Central Bank under previously established operational and performance parameters.

The direct supervision is carried out by technical teams at the regional offices of the Central Bank, according to a program drawn pursuant to basic guidelines. The program can be tailored as a result of additional demand, such as the checking of irregularities or unusual procedures occurring in the financial system. The indirect supervision is made up of the monitoring, by means of a computer system, of financial institutions and conglomerates, independent of any previously established program, the main objective being the gathering of information on their economic / financial performance and behavior pattern.

In practice, they are complementary to one another, since the indirect supervision allows for an adjustment of the direct program whenever irregularities are detected. Besides, the technical teams are supplied with data and relevant information on the institutions, which can be useful for the orientation of their work. Once this task is accomplished, eventually detected irregularities are inserted into Information System of the Central Bank and duly adjusted, updating the data on each company, enabling indirect monitoring.

Presently, the Central Bank is supervising over three thousand institutions (over 23,000 premises), which include:

- multiple function banks;
- commercial banks;
- saving banks;
- development and investment banks;
- financial institutions;
- brokerage and dealers firms;
- leasing companies;
- real-estate credit societies;
- savings and loan associations;
- investment funds;
- credit cooperatives; and
- purchasing pools (consórcio).

Rural and agricultural industrial credit operations are also supervised, frequently demanding on-site inspections to properties and financed ventures.

Apart from this, complaints from the public in general, requests from other departments within the Central Bank, and from the executive, legislative and judicial branches of the government, call for immediate action to either gather information or inquire into irregularities. The supervision activities also encompass over a hundred Brazilian banks' premises abroad, located in 38 countries.

To better accomplish its supervisory role, the Central Bank has technical teams that consolidated the procedures and permanently update and improve the Inspection Manual (MF), which is used by the inspectors to help them in their work, as well as other regulatory manuals already mentioned.

The Information System of the Central Bank (SISBACEN), which can be used free of charge by the institutions under the National Financial System, is a vast source of information on accounting data, and makes it possible for inspectors to properly identify any irregular or risky situation and monitor the behavior of the institutions, both individually and comparatively, based on economic and financial indicators.

Other systems allow access to information pertaining to:

- the financial records of institutions and individuals that act as managers in the National Financial System;
- the flow of Bank Reserves and liquidity loan operations;
- the registration and control of documents;
- rates and indexes used by the market; and
- the monitoring of irregularities practiced by the financial institutions.

Programs are presently being developed, envisioning the consolidation of both external and internal information of the institutions, the calculation and monitoring of operational limits and the concentration of monetary applications (largest debtors) and borrowings (largest depositors).

5.1.3.5. Currency

The activities related to currency management aim at satisfying the demand for money, indispensable to the financial and economic activities of the country.

The Central Bank, along with the MINT (Casa da Moeda do Brasil), develops projects for bills and coins that consider circulation, cost, counterfeit avoidance and semantic value aspects, i.e., all cultural aspects that the circulation of money involves. Therefore, theme motives are adopted that stress the national identity on both bills and coins.

Every year, the MINT is requested to print and coin the expected volume of money needed to meet the currency requirements of the economy. The agreement signed with the MINT also aims at the development of technological procedures that may provide the Brazilian currency high quality standards. Besides, permanent evaluation is conducted to enable the distribution of the currency throughout the national territory, providing the regional offices of the Central Bank with stocks compatible with the needs of each geo-economic region.

Since the issuing and the collection of money reflect the real demand of the banking system, the Central Bank collects the bank reserves' deposits on one side but also meets the requests for currency of the financial institutions on the other side, carrying out its role of banks' bank not only institutionally but also physically. The replacement of the currency, given the continental dimensions of Brazil, demands that bank deposits be processed at high speeds, and for that purpose much of the old currency still in adequate conditions is maintained in circulation, while the destruction procedures of old bills becomes decentralized.

The cooperation with official agencies that fight counterfeit activities is also a part of the Central Bank's activities, passing on the information on the seizure of counterfeit notes, location and quantities seized. In this sense, the Central Bank has actively participated in international events concerning the safety of currency.

5.1.3.6. Other Functions

The Central Bank carries out a number of other activities that, due to their nature and specificity, do not fall under those already described. Nevertheless, they are extremely important to the national economic life, deserving, therefore, a brief description.

Firstly, as a result of constitutional provisions, the Central Bank carries out the function of the government's banker, holding the so-called "single account" of the National Treasury, that records the cash flow of the federal government. These cash flows are composed of taxes revenues, collected by the financial institutions acting as intermediaries in the collection of taxes and payments made on behalf of the National Treasury, by the net result of the primary auctions of the National Treasury and by the positive result of the annual balance of the Central Bank. The later is used towards the payment of the National Treasury debt.

The Central Bank also has other functions as the main regulatory agency in specific areas such as:

- regulate, authorize and monitor the activities of purchase pools (consórcios), mutual funds or other similar consortia for the acquisition of goods of any nature;
- regulate, authorize and monitor leasing companies, real-estate credit societies, savings and loan associations, as well as regulate all their operations;
- regulate the operations of the National Rural Credit System (SNCR), consolidate its data in the Rural Operations Ordinary Entry (RECOR), and manage the Farming Activity Guaranty Program (PROAGRO);
- monitor the indebtedness by the states and municipalities through the National System for the Registry of the Public Sector Credit Operations, including the required compliance with the limits and conditions established by the Federal Senate resolutions;
- conduct social communication activities both of a technical nature, through publications such as the Monthly Bulletin, the Annual Report and monthly Press Releases, and guidance to the general public provided by a specific service system available at all regional offices.

5.2 - The Basle Committee of the BIS (Bank for International Settlements)

The Basle Committee was established as the Committee on Banking Regulations and Supervisory Practices by the central-bank Governors of the Group of Ten countries at the end of 1974 in the aftermath of serious disturbances in international currency and banking markets (notably the failure of Bankhaus Herstatt in West Germany). The first meeting took place in February 1975 and meetings have been held regularly three or four times a year since.

The Committee's members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, United Kingdom and United States. Countries are represented by their Central Bank and also by the authority with formal responsibility for the prudential supervision of banking business where this is not the Central Bank

The Committee provides a forum for regular cooperation between its member countries on banking supervisory matters. The first task of the Committee, in response to a mandate from the Governors of the Group of Ten countries, was to consider methods of improving "early-warning" systems. Subsequently, the Committee has discussed modalities for international cooperation in order to close gaps in the supervisory net and to improve supervisory understanding and the quality of banking supervision worldwide. It seeks to do this in three principal ways: by exchanging information on national supervisory arrangements; by improving the effectiveness of techniques for supervising international banking business; and by setting minimum standards for capital adequacy and reviewing the desirability of setting standards in other areas.

The Committee does not possess any formal supranational supervisory authority; its conclusions do not have, and were never intended to have, legal force. Rather, it formulates broad supervisory standards and guidelines and recommends statements of best practice in the expectation that individual authorities will take steps to implement them through detailed arrangements - statutory or otherwise - which are best suited to their own national systems. In this way, the Committee encourages convergence towards common approaches and common standards without attempting detailed harmonization of member countries' supervisory techniques.

The Committee reports to the Committee of Central Bank Governors of the Group of Ten countries, which meets at the Bank for International Settlements (BIS), and seeks the Governors' endorsement and commitment for its major initiatives. In addition, however, since the Committee contains representatives from institutions which are not Central Banks, the decisions it takes carry the commitment of many national authorities outside the Central Banking fraternity.

One important objective of the Committee's work has been to close gaps in international supervisory coverage in pursuit of two basic principles: that no foreign banking establishment should escape supervision; and that supervision should be adequate. In May 1983 the Committee finalized a document "Principles for the Supervision of Banks' Foreign Establishments" which set down the principles for sharing supervisory responsibility for banks' foreign branches, subsidiaries and joint ventures between host and parent (or home) supervisory authorities. This document is a revised version of a paper originally issued in 1975 which came to be known as the "Concordat". The text of the earlier paper was expanded and reformulated to take account of changes in the market and to incorporate the principle of the consolidated supervision of international banking groups (which had been adopted in 1978). In April 1990, a Supplement to the 1983 Concordat was issued with the intention of improving the flow of prudential information between banking supervisors in different countries. In June 1992 certain of the principles of the Concordat were reformulated as Minimum Standards. These Standards were communicated to other banking supervisory authorities who were invited to endorse them, and in July 1992 the Standards were published. The Committee is constantly exploring the mechanics of enforcing these Standards. As an outcome of the ongoing collaboration in the supervision of international banks, the Committee has addressed a number of related topics. It has collected information on most national systems for supervising banks' foreign establishments; it has examined the obstacles to effective supervision arising from bank secrecy regulations in different countries; and it has studied authorization procedures for new foreign banking establishments. In October 1996 the Committee released a report drawn up by a joint working group also containing supervisors from offshore centers, which presented proposals for overcoming the impediments experienced by banking supervisors in conducting effective consolidated supervision of the cross-border operations of international banks. This report was endorsed by supervisors from one hundred and forty countries who attended the International Conference of Banking Supervisors (ICBS) in June 1996. A survey will be conducted in advance of the next ICBS to monitor the progress made in overcoming obstacles to effective consolidated supervision.

The topic to which most of the Committee's time has been devoted in recent years is capital adequacy. In the early 1980s the Committee became concerned that the capital ratios of the main international banks were deteriorating just at the time that international risks, notably those vis-à-vis heavily-indebted countries, were growing. Backed by the Group of Ten Governors, the members of the Committee resolved to halt the erosion of capital standards in their banking systems and to work towards greater convergence in the measurement of capital adequacy. This resulted in the emergence of a broad consensus on a weighted approach to the measurement of risk, on and off the balance sheet.

There was a strong recognition within the Committee of the overriding need for a multinational accord to strengthen the stability of the international banking system and to remove a source of competitive inequality arising from differences in national capital requirements. Following comments on a consultative paper published in December 1987, a capital measurement system was approved by the G-10 Central Bank Governors and released to the banks in July 1988. This provided for the implementation of the framework with a minimum capital standard of 8% by end-1992. Since 1988, this framework has been progressively introduced not only in member countries but in virtually all other countries with active international banks. In September 1993 a statement was issued confirming that all the banks in the G-10 countries with material international banking business were meeting the minimum requirements laid down in the Accord.

The 1988 capital framework is not intended to be static but to evolve over time. In November 1991, it was amended to give greater precision to the definition of those general provisions or general loan-loss reserves which could be included in capital. In April 1995, the Committee issued an Amendment to the Capital Accord, to take effect end-1995, to recognize the effects of bilateral netting of banks' credit exposures in derivative products and to expand the matrix of add-on factors. In April 1996, a further document was issued explaining how Committee members intended to recognize the effects of multilateral netting.

Another task has been to refine the framework to address risks other than credit risk, which was the focus of the 1988 Accord. In January 1996, following two consultative processes, the Committee issued a formal Amendment to the Capital Accord, effective end-1997 at the latest, designed to incorporate within the Accord the market risks arising from banks' open positions in foreign exchange, traded debt securities, equities,

commodities and options. An important aspect of the Amendment is that, as an alternative to a standardized measurement method, banks will be permitted, subject to strict quantitative and qualitative standards, to use internal value-at-risk models as a basis for measuring their market risk capital requirements. Much of the preparatory work for the market risk package was undertaken jointly with securities regulators and the Committee believes they are capable of application to non-bank financial institutions.

In addition to work on the Concordat and capital standards, particular supervisory questions which the Committee has addressed and which have resulted in published papers include the supervision of banks' foreign exchange positions, the management of banks' international lending (i.e. country risk), the management of banks' off-balance-sheet exposures, the prevention of the criminal use of the banking system, the supervision of large exposures, risk management guidelines for derivatives and the management of interest rate risk. Other topics currently being addressed include the supervision of financial conglomerates, risk management, and issues relating to reporting, disclosure and accounting. In view of the complexity of all these issues, much of the technical work is undertaken in sub-committees composed of experts on each topic.

The Committee has worked closely with the International Organization of Securities Commissions (IOSCO) over a number of years. Since 1994 four joint reports have been issued dealing with the management, reporting and disclosure of the derivatives activities of banks and securities firms. Members of the Basle Committee have also been working with IOSCO and insurance regulators on the supervision of financial conglomerates. A discussion paper on this matter was issued in July 1995 and a Joint Forum of banking, securities and insurance regulators has been established to take this work forward. In May 1996, the Basle Committee and IOSCO released a Joint Statement which responded to a number of concerns expressed by G-7 Ministers of Finance at the 1995 Halifax Summit and described the steps banking and securities regulators were taking together to preserve the stability of the financial system.

The Committee has also undertaken work on a number of technical banking and accounting issues in conjunction with outside bodies. These include the International Accounting Standards Committee, the International Auditing Practices Committee of the International Federation of Accountants and the International Chamber of Commerce. This work has resulted in papers on interbank confirmation procedures, on relationships between bank supervisors and external auditors and on uniform rules for foreign exchange contracts. In addition, contacts have been developed with the European Commission, the European Banking Federation and securities regulatory organizations in member countries.

In order to enable a wider group of countries to be associated with the work being pursued in Basle, the Committee has always encouraged contacts and cooperation between its members and other banking supervisory authorities. It has circulated to supervisors throughout the world published and unpublished papers, as well as more general information about its work. In many cases, supervisory authorities in non-G-10 countries have seen fit publicly to associate themselves with the Committee's initiatives. Contacts have been further strengthened by biennial International Conferences of Banking Supervisors. Nine such conferences have been held to date, the first in London in 1979. The next conference will take place in October 1998 in Australia.

The Basle Committee maintains close relations with a number of fellow supervisory groupings: the Contact Group of supervisors from the member states of the European Union, which began to meet in 1972; the Offshore Group of Banking Supervisors, with members from the principal offshore banking centres, which first met in 1980 and has held a number of joint meetings with the Basle Committee; the Commission of the Latin American and Caribbean Banking Supervisory and Inspection Organizations which has met annually since 1981; and more recently formed supervisory groups from the Caribbean, from the Arab States, from the SEANZA countries of the Indian sub-continent, South-East Asia and Australasia, from central and eastern European countries, from the African continent and from Central Asia and Transcaucasia. The Basle Committee assists these groups in a variety of ways, by providing suitable documentation, participating as appropriate in the meetings, offering limited Secretariat assistance and hosting meetings between the principals of the various groups to coordinate future work.

Through the medium of the international conferences and the supervisory groupings referred to, the principles agreed by the Basle Committee have been widely disseminated. A large number of countries outside the Group

of Ten have given their support to the fundamental objective of ensuring that no international banking activity should escape supervision. As a result there now remain only a very few territories around the world where banking companies are licensed and allowed to operate without serious efforts to accompany a licence with effective supervision and cooperation with other supervisory authorities. Moreover, the Committee has always worked to raise the level of supervisors' consciousness of their mutual interdependence where the international activities of banks within their jurisdictions are concerned. The development of close personal contacts between supervisors in different countries has greatly helped in the handling and resolution of problems affecting individual banks as they have arisen. This is an important, though necessarily unpublicized, element in the Committee's regular work.

The wider role of the Committee in promoting sound supervisory standards worldwide has intensified. The Communiqué issued by the G-7 Heads of Government following the Lyon Summit in June 1996 called for the Committee to participate in efforts to improve supervisory standards in the emerging markets. As a result, and in close collaboration with many non-G-10 supervisory authorities, the Committee has prepared for the 1997 Summit in Denver two documents designed to assist in this process, a set of "Core Principles for Effective Banking Supervision" and this Compendium in three volumes of the significant documents previously issued by the Committee.

The Committee's Secretariat is provided by the Bank for International Settlements in Basle, where nearly all the Committee's meetings take place. The Secretariat, currently nine strong, is mainly staffed by professional supervisors on temporary secondment from member institutions. In addition to undertaking the secretarial work for the Basle Committee and its sub-committees, it stands ready to give advice to supervisory authorities in all countries. One member principally devotes his attention to the emerging markets, particularly those in eastern Europe and Africa, offering advice on prudent supervisory practices, acting as a Secretary for senior policy meetings and coordinating training facilities. The Secretariat ensures that non-G-10 supervisory authorities are kept informed of the work of the Committee. In this connection, it prepares a biennial report on international developments in banking supervision. Since 1987 the Secretariat has organized supervisory seminars at the BIS for promising young bank supervisors, attended by persons from about thirty-five countries worldwide, which now take place on an annual basis. In addition, the Secretariat conducts several training courses annually at regional locations and is regularly invited to lecture at training courses organized by the regional groups themselves or other official organizations.

6 - DEVELOPMENT AND IMPLEMENTATION OF PRUDENTIAL REGULATIONS AND REQUIREMENTS

6.1 - Core Principles for Effective Banking Supervision (Basle Core Principles)

Weaknesses in the banking system of a country, whether developing or developed, can threaten financial stability both within that country and internationally. The need to improve the strength of financial systems has attracted growing international concern. The Communiqué issued at the close of the Lyon G-7 Summit in June 1996 called for action in this domain. Numerous official bodies have recently been examining ways to strengthen financial stability throughout the world and notably in the emerging market economies.

The Basle Committee on Banking Supervision has been working in this field for many years, both directly and through its many contacts with banking supervisors in every part of the world. In the last year it has been examining how best to expand its efforts aimed at strengthening prudential supervision in all countries by building on its relationships with countries outside the G-10 as well as on its earlier work to enhance prudential supervision in its member countries. In particular, the Committee has prepared two documents for release:

- a comprehensive set of Core Principles for effective banking supervision (The Basle Core Principles) applicable in both G-10 and non-G-10 countries (attached); and,

- a Compendium of the existing Basle Committee recommendations, guidelines and standards (to be published separately).

Both documents have been endorsed by the G-10 Central Bank Governors. They have been submitted to the G-7 and G-10 Finance Ministers in preparation for the Denver Summit in the hope that they will provide a useful mechanism for strengthening financial stability in all countries.

In developing the Principles, the Basle Committee has worked closely with non-G-10 supervisory authorities. The document has been prepared in a group containing representatives from the Basle Committee and from Chile, China, the Czech Republic, Hong Kong, Mexico, Russia and Thailand. Eight other countries (Brazil, Hungary, India, Indonesia, Korea, Malaysia, Poland and Singapore) were also closely associated with the work. The drafting of the Principles benefited moreover from broad consultation with a larger group of individual supervisors, both directly and through the regional supervisory groups. The IMF and the World Bank have seen and commented on the work at various intermediate stages.

The Basle Core Principles are being released for consultation. Comments are invited from non-G-10 supervisory authorities in particular, but also from banks and other interested parties. Private sector commenters are asked to address their remarks to the general framework of the Principles and not to specific points relating to their own jurisdictions. Such comments should be addressed to national supervisors who are invited to transmit them to the Basle Committee. All comments must be received by the Committee no later than 16th June 1997.

At the end of the comment period, the document will be finalized, hopefully in advance of the IMF and World Bank annual meetings in Hong Kong in late September 1997. Advantage will be taken of the opportunity provided by that forum to present and explain the Principles to a global audience. Subsequently, the Basle Committee will be ready to play a role, together with other interested organizations, in monitoring the progress made by individual countries in implementing the Principles.

The Basle Core Principles comprise twenty-five basic Principles that need to be in place for a supervisory system to be effective. The Principles relate to:

- Preconditions for effective banking supervision - Principle 1
- Licensing and structure - Principles 2 to 5
- Prudential regulations and requirements - Principles 6 to 15
- Methods of ongoing banking supervision - Principles 16 to 20
- Information requirements - Principle 21
- Formal powers of supervisors - Principle 22, and
- Cross-border banking - Principles 23 to 25.

In addition to the Principles themselves, the document contains explanations of the various methods supervisors can use to implement them.

National agencies should apply the Principles in the supervision of all banks within their jurisdictions. The Principles are minimum requirements and in many cases may need to be supplemented by other measures designed to address particular conditions and risks in the financial systems of individual countries.

The Basle Core Principles are intended to serve as a basic reference for supervisory and other public authorities in all countries and internationally. It will be for national supervisory authorities, many of which are actively seeking to strengthen their current supervisory regime, to use the attached document to initiate a program designed to address any deficiencies as quickly as is practical within their legal authority. It is suggested that the IMF, the World Bank and other interested organizations use the Principles in assisting individual countries to

strengthen their supervisory arrangements in connection with work aimed at promoting overall macroeconomic and financial stability.

Supervisory authorities throughout the world will be encouraged to make a formal endorsement of the final version of the Basle Core Principles. The members of the Basle Committee and the fifteen countries that have participated in their drafting all agree with the content of the document.

The chairpersons of the regional supervisory groups are supportive of the Basle Committee's efforts. Most of these groups plan to discuss the Core Principles at meetings to be held over the next few months. They will all actively promote the consultation process among their membership and it is hoped that these groups will be in a position to confirm their general support by the time the comment process has been concluded. Discussions are also in progress to define the role the regional groups will play in promoting the formal endorsement of the Principles and in monitoring implementation by their members.

Implementation of the Core Principles will involve carrying out a review of existing supervisory arrangements and, where these are inconsistent in any material respect with the Principles, establishing a time frame for addressing the deficiencies. The Principles have been designed to be verifiable by supervisors, their regional groups, and the market at large. Implementation of the Principles will be surveyed by the Basle Committee and reviewed at the International Conference of Banking Supervisors in October 1998 and bi-annually thereafter.

The Basle Committee believes that achieving consistency with the Core Principles by every country will be a significant step in the process of improving financial stability domestically and internationally. The speed with which this objective will be achieved will vary. In many countries, substantive changes in the legislative framework and in the powers of supervisors will be necessary because many supervisory authorities do not at present have the statutory authority to implement all of the Principles. In such cases, the Basle Committee believes it is essential that national legislators give urgent consideration to the changes necessary to ensure that the Principles can be applied in all material respects. The need for new legislation will be taken into account by the Basle Committee in monitoring progress towards implementation.

The Basle Committee will continue to pursue its standard-setting activities in key risk areas and in key elements of banking supervision as it has done in documents such as those reproduced in the Compendium. The Basle Core Principles will serve as a reference point for future work to be done by the Committee and, where appropriate, in cooperation with other organizations. The Committee stands ready to encourage work at the national level to implement the Principles in conjunction with other supervisory bodies and interested parties. Finally, the Committee is committed to strengthening its interaction with supervisors from non-G-10 countries and maintaining its considerable investment in technical assistance and training.

LIST OF CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION

Preconditions for Effective Banking Supervision

1. An effective system of banking supervision will have clear responsibilities and objectives for each agency involved in the supervision of banks. Each such agency should possess operational independence and adequate resources. A suitable legal framework for banking supervision is also necessary, including provisions relating to authorization of banking establishments and their ongoing supervision; powers to address compliance with laws as well as safety and soundness concerns; and legal protection for supervisors. Arrangements for sharing information between supervisors and protecting the confidentiality of such information should be in place.

Licensing and Structure

2. The permissible activities of institutions that are licensed and subject to supervision as banks must be clearly defined, and the use of the word "bank" in names should be controlled as far as possible.

3. The licensing authority must have the right to set criteria and reject applications for establishments that do not meet the standards set. The licensing process, at a minimum, should consist of an assessment of the bank's ownership structure, directors and senior management, its operating plan and internal controls, and its projected financial condition, including its capital base; where the proposed owner or parent organization is a foreign bank, the prior consent of its home country supervisor should be obtained.
4. Banking supervisors must have the authority to review and reject any proposals to transfer significant ownership or controlling interests in existing banks to other parties.
5. Banking supervisors must have the authority to establish criteria for reviewing major acquisitions or investments by a bank and ensuring that corporate affiliations or structures do not expose the bank to undue risks or hinder effective supervision.

Prudential Regulations and Requirements

6. Banking supervisors must set minimum capital requirements for banks that reflect the risks that the banks undertake, and must define the components of capital, bearing in mind its ability to absorb losses. For internationally active banks, these requirements must not be less than those established in the Basle Capital Accord.
7. An essential part of any supervisory system is the independent evaluation of a bank's policies, practices and procedures related to the granting of loans and making of investments and the ongoing management of the loan and investment portfolios.
8. Banking supervisors must be satisfied that banks establish and adhere to adequate policies, practices and procedures for evaluating the quality of assets and the adequacy of loan loss provisions and reserves.
9. Banking supervisors must be satisfied that banks have management information systems that enable management to identify concentrations within the portfolio and supervisors must set prudential limits to restrict bank exposures to single borrowers or groups of related borrowers.
10. In order to prevent abuses arising from connected lending, banking supervisors must have in place requirements that banks lend to related companies and individuals on an arm's-length basis, that such extensions of credit are effectively monitored, and that other appropriate steps are taken to control or mitigate the risks.
11. Banking supervisors must be satisfied that banks have adequate policies and procedures for identifying, monitoring and controlling country risk and transfer risk in their international lending and investment activities, and for maintaining adequate reserves against such risks.
12. Banking supervisors must be satisfied that banks have in place systems that accurately measure, monitor and adequately control market risks; supervisors should have powers to impose specific limits and/or a specific capital charge on market risk exposures, if warranted.
13. Banking supervisors must be satisfied that banks have in place a comprehensive risk management process (including appropriate board and senior management oversight) to identify, measure, monitor and control all other material risks and, where appropriate, to hold capital against these risks.
14. Banking supervisors must determine that banks have in place internal controls that are adequate for the nature and scale of their business. These should include clear arrangements for delegating authority and responsibility; separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities; reconciliation of these processes; safeguarding its assets; and appropriate independent internal or external audit and compliance functions to test adherence to these controls, as well as applicable laws and regulations.

15. Banking supervisors must determine that banks have adequate policies, practices and procedures in place, including strict "know-your-customer" rules, that promote high ethical and professional standards in the financial sector and prevent the bank being used, intentionally or unintentionally, by criminal elements.

Methods of Ongoing Banking Supervision

16. An effective banking supervisory system should consist of some form of both on-site and off-site supervision.
17. Banking supervisors must have regular contact with bank management and thorough understanding of the institution's operations.
18. Banking supervisors must have a means of collecting, reviewing and analyzing prudential reports and statistical returns from banks on a solo and consolidated basis.
19. Banking supervisors must have a means of independent validation of supervisory information either through on-site examinations or use of external auditors.
20. An essential element of banking supervision is the ability of the supervisors to supervise the banking organization on a consolidated basis.

Information Requirements

21. Banking supervisors must be satisfied that each bank maintains adequate records drawn up in accordance with consistent accounting policies and practices that enable the supervisor to obtain a true and fair view of the financial condition of the bank and the profitability of its business, and that the bank publishes on a regular basis financial statements that fairly reflect its condition.

Formal Powers of Supervisors

22. Banking supervisors must have at their disposal adequate supervisory measures to bring about corrective action when banks fail to meet prudential requirements (such as minimum capital adequacy ratios), when there are regulatory violations, or where depositors are threatened in any other way.

Cross-border Banking

23. Banking supervisors must practise global consolidated supervision, adequately monitoring and applying appropriate prudential norms to all aspects of the business conducted by banking organizations worldwide, primarily at their foreign branches and subsidiaries.
24. A key component of consolidated supervision is establishing contact and information exchange with the various other supervisors involved, primarily host country supervisory authorities.
25. Banking supervisors must require the local operations of foreign banks to be conducted to the same high standards as are required of domestic institutions and must have powers to share information needed by the home country supervisors of those banks for the purpose of carrying out consolidated supervision.

6.2 - Regulation by the Central Bank of Brazil

6.2.1 - Progress in Prudential Regulation of and Basic Principles for Improving Banking Supervision

Three and a half years after the Real Plan was launched, Brazil's financial system may be said to have undergone a number of important changes. Major changes have taken place in both banking legislation and supervision, accompanied by far-reaching corporate reorganization of about one third of the banks that existed at start-up of the Real Plan.

The process of adjustment of the Brazilian financial system can be divided, broadly speaking, into three partially overlapping phases. The processes that would respectively characterize these three phases were as follows: in the first phase, which covers the period from start-up of the Real Plan to mid-1996, the transfer of shareholder control between private financial institutions, in conjunction with amendments to banking legislation and supervision together with implementation of the Program of Incentives to the Restructuring and Strengthening of the National Financial System - PROER; in the second phase, which began in mid-1996, adjustment of the public financial institutions and the entry of foreign banks into the Brazilian economy; and finally, in the third phase, chiefly reforms in the operational modus operandi of the Brazilian banks.

This restructuring of the financial system, which is ongoing, should be seen as one of the fundamental reforms of the Brazilian economy, on a par with, for example, social security system or government reform. It is stressed that the success of the financial reform is due in large part to the speed with which the authorities took the measures that characterized the first phase, thereby averting the risk of a systemic bank crisis when two of the biggest Brazilian banks (Econômico and Nacional) came under Central Bank intervention. The need for immediate action, however, prevented the wide prior discussion of the topic with society and the Legislative Branch that had marked the other structural reforms. This explains the initial failure of some sections of society to fully grasp the underlying objectives of PROER and the other measures in this field.

Generally speaking, the measures taken in Brazil are consistent with the recommendations made by the Basle Committee on Banking Supervision. These recommendations, in the discussion of which the Central Bank took an active part, were announced in September of 1997 at the IMF/World Bank Annual Meetings in Hong Kong. They form a set of 25 basic principles improving the efficiency of banking supervision and reducing the risk of financial crises.

The measures taken by the Brazilian Government, and the principles recommended by the Basle Committee on Banking Supervision, are summarized below.

Preconditions for effective banking supervision (principles 1 and 22). These comprise action to ensure the political independence of the authorities responsible for supervising the financial system and also the availability of instruments enabling the Central Bank to take preventive action. This had been one of the major problems in the activities of the Central Bank, since Law no. 6024/74 and Decree-Law 2321/87, governing the intervention and liquidation of financial institutions, did not allow such preventive action.

The Government accordingly published MP (provisional measure) no. 1182 of Nov. 17, 1982, expanding the powers of the Central Bank to implement preventive measures in the supervision of financial institutions. It allowed institutions with liquidity problems to be required to:

- new capital injection of resources;
- transfer shareholder control; and/or
- undertake company reorganization through incorporation, merger or split.

This MP, which was converted into Law no. 9447 of March 15, 1997, empowered the Central Bank to expropriate the shares of the controlling shareholder of a financial group and subsequently to sell them at public auction in the event that the former did not heed its recommendations. It also extended to the controlling shareholder joint and several liability with the directors in the case of problems with the institution.

Rules governing the setting up and organization of banks (principles 2-5). These principles consist in laying down a set of rules for the constitution of a bank (minimum capital required, plan of activities, competence and integrity of the controllers, and so on) and made transfer of shareholder control or mergers subject to prior approval by the government agency responsible for banking supervision.

These principles allowed the authorities to be selective in granting bank operation permits, and in Brazil they are being implemented by the Central Bank, which always requires detailed plan from groups that petition to be

allowed to purchase or set up new banks to furnish detailed plans. It also empowers the Central Bank to veto purchases and/or associations of banks by groups whose new controllers do not possess concrete and well-defined plans of operation in the sector.

It is also stressed that following the issue of Resolution no. 2212 of November 16, 1995, the Central Bank introduced major changes in this field. Among these, it:

- raised the minimum capital required to set up a new bank;
- laid down provisions clearly prescribing that the economic capacity of the controllers of any financial institution is to be analyzed on the basis of the situation of the controlling group and of the physical persons exerting final control and not just of the directly controlling entity;
- required that the financial institutions join the Loan Guarantee Fund – FGC, as a condition of authorization to operate; and
- abolished the rule that the minimum capital for a foreign bank be double that required for a Brazilian bank.

Prudential Regulation and Risk Management Requirements (principles 6-15). These principles specify that a bank's minimum capital shall reflect the risk structure of its activities and that it shall be required to develop appropriate instruments to identify, monitor and control the risks involved in its banking activities.

Just after the start of the Real Plan, the Government issued Resolution no. 2099 of August 17, 1994, known as the Basle Agreement. This accord laid down the minimum capital required to set up a bank, together with additional limits, depending on the degree of structural risk of the bank's activities, designed to serve both as permanent funding for the bank's activities and as a reserve against the risks and losses deriving from them.

By Resolution no. 2399 of June 25, 1997, the Central Bank raised the minimum capital requirement of banking institutions from 8 percent to 10 percent of risk-weighted assets.

This new limit is above that recommended by the Basle Supervision Committee (8 percent) and signifies a lowering of the permitted loan ceiling from 12.5 times to 10 times the value of liquid net worth. The Resolution also changed the method of calculating the estimated risk of unguaranteed swap operations, with derivatives. The banks will be required to have a provision of 16 percent of the value exposed to the risk of such operations. In addition, Circular no. 2784 of November 27, 1997 raised the minimum capital limit to 11 percent, while permitting the institutions until the end of 1988 to make the adjustment, and the swap operations provision to 20 percent, with an adjustment deadline of February 1998.

Concerning risk management, many of the Brazilian banks are implementing advanced risk analysis models, and the Central Bank recently issued Resolution. no 2390 of May 22, 1997, creating a Credit Risk Center. This measure requires financial institutions to identify and report to the Central Bank clients (both individuals and companies) that hold a debtor balance of R\$50,000.00 (fifty thousand Reais) or more and allows the supervising institution to exercise disposition for the financial institutions, with the account-holder's permission, over the total debt of such clients. This facilitates accurate assessment of large debtors' capacity to pay and hence greater efficiency in the loan-granting process, at lower cost, which in turn tends to narrow bank loan spreads.

In addition to the direct benefits generated by the setting up of the Credit Risk Center, it will make it possible within a short period to reformulate the risk classification criteria completely. Under the current legislation, the setting up of provisions stems basically from the event of default by the borrower. Under the new rules, provisions will have to take into account the ex ante risk assessment of each operation and hence reflect the risk of future default instead of losses already incurred by the financial institution. In summary, this means abandoning the system preoccupied with the past and adopting in its stead a forward-looking approach that is nevertheless appropriate to risk management on the part both of bank directors and Central Bank supervision.

Ways of supervising financial institutions (principles 16- 21). These principles prescribe that banking supervision shall be based both on periodic written reports by the banks and on the supervision effected directly in each of them. The supervision officials must maintain frequent contact with the banks and seek to obtain a complete grasp of the various types of banking operations. The information reported by the banks must be verified by means of direct supervision and/or with the assistance of external auditors, and banking supervision shall be done on a consolidated basis, including the bank's holdings in other enterprises.

The Central Bank has been following this set of principles in the ongoing process of restructuring of its supervision procedures. From a supervision based mainly on reports sent by the banks themselves (off-site supervision) and of an eminently bureaucratic nature, the Central Bank has gone over to more modern supervision procedures. Note that with MP no. 1334 of March 13, 1996 the Central Bank instituted the accountability of the auditing companies or the independent auditors in cases of irregularities in the financial institution, requiring the latter to inform the Central Bank whenever problems are identified or the bank is refusing to divulge information. Moreover, the Program for Strengthening of the Central Bank Supervision Tools - PROAT, is due to begin operation very soon. Its main purposes are to provide suitable training for banking supervision staff and to study reformulation of the accounting information financial institutions are required to furnish, with object of standardizing it and making it comparable with international models.

Need for Consolidated Global Supervision and Exchange of Information Between Central Banks (principles 23-25). These last three principles prescribe that in banking supervision a bank's domestic operations shall be consolidated with operations it carries out abroad. The importance of this consolidation is that it avoids, for example, the possibility of a bank concealing loan portfolio problems through a subsidiary abroad.

The Central Bank issued Resolution no. 2302 of July 25, 1996, amending the legislation dealing with the opening of bank branches abroad and consolidated the financial statements of banks in Brazil with their holdings abroad, thereby allowing effective consolidated global banking supervision on the part of the Central Bank.

The main points of this measure are as follows:

- it raises the minimum capital required to set up banks with offices (branch agencies, representatives' offices, subsidiaries) abroad;
- it raises the minimum capital required to set up offices abroad;
- it allows the Central Bank to begin to supervise the operations of offices and enterprises in which the bank holds shares abroad. In the event that such supervision is not permitted or guaranteed by the foreign country, this will entail reducing the bank's liquid net worth by all its holdings abroad for the purposes of determining its operational limits, and
- it consolidates financial statements in Brazil with those of the bank abroad (including branches, etc. and also financial and non-financial enterprises in which it holds at least 25 percent of the corporate capital) for purposes of calculating the operational limits of the Basle Agreement.

In sum, in addition to instituting specific measures, such as PROER and Proex - Incentive Program for the Reduction of State's Participation in Banking Activities, to allow transfers of shareholder control of financial institutions to take place more expeditiously and more securely for the Brazilian society, the Government has edited a modern set of measures in the areas of banking legislation and supervision not only compatible with but also, in some instances, more rigorous than that suggested by the Basle Committee on Banking Supervision.

7 - THE WORLD AFTER THE ASIAN CRISIS - CHANGES ON RISK SUPERVISION

7.1 - Overview

The economic and financial crisis that erupted in southeast Asia in July 1997 has continued to deepen and broaden until the beginning of 1998. As investor sentiment toward the emerging market countries has deteriorated, not only has the crisis spread to several other economies in Asia, but spillover effects have been felt throughout the global financial system.

The crisis has brought downward pressures on the currencies of countries perceived as vulnerable - typically those countries whose competitive positions have deteriorated as a result of the large currency depreciations in southeast Asia, those that exhibit potentially unsustainable current account deficits, and especially those that have relied heavily on short-term borrowing. In addition, many emerging market economies have witnessed sharp declines in stock market prices, with generally smaller stock market reverberations experienced in the advanced economies. Large exchange rate depreciations and falling equity prices in turn have exposed and exacerbated financial sector fragilities in many countries, including most recently in Korea.

Banking sector problems have also intensified in Japan, where the fragile economic recovery, which had already suffered a setback following the withdrawal of fiscal stimulus in the first half of 1997, will be further undermined by spillovers from the crisis affecting many of Japan's Asian trading partners.

The repercussions in regional and global financial markets of what began as an adverse shift in market sentiment toward Thailand and several other members of the Association of South-East Asian Nations (ASEAN) have proven much deeper and more extensive than seemed likely only a few months ago. The economic implications also can now be expected to be more serious. As a result of sharply reduced capital inflows and the need for strong measures to correct domestic and external imbalances and to help restore and maintain confidence, many emerging market countries are likely to experience a slowdown in domestic demand and activity during the period ahead, with significant declines in imports and reductions in external deficits. This slowdown will adversely affect activity in other economies. Among the advanced economies, Japan will be particularly affected, although North America and Europe are also likely to experience a dampening of foreign demand.

At the time of writing, it is far from clear that market turbulence has ended, and more uncertainty than usual applies to any assessment of the most likely future course of developments. The staff's revised Baseline projections assume that investor sentiment toward the emerging market countries will begin to turn around in the course of 1998 and that the countries most affected, after a significant slowdown in growth in 1998, will witness a gradual pickup during 1999, even though the upturn may not be quite as rapid as the V-shaped recovery experienced by Mexico and Argentina following the 1994-95 "tequila crisis."

Provided that macroeconomic adjustment, financial sector restructuring, and other reform efforts are implemented without undue delay, such an outcome is clearly possible - and indeed seems most likely - not least in light of the strength of the medium-term macroeconomic fundamentals of the Asian economies.

In this scenario, the economic slowdown in Asia and the spillovers to the rest of the world would be relatively moderate and temporary. If policy and reform efforts are inadequate, however, the crisis of confidence may persist and continue to spread to other emerging market countries. In that case, there would be more serious implications for financial flows to these countries for a more extended period, their economic slowdown would be deeper and more protracted, and the adverse spillovers to the advanced economies would be more serious.

7.2 - Crisis Management and Crisis Resolution

Understanding what caused the recent costly wave of banking system failures in developing and transition economies is the key to preventing a recurrence. It is important to distinguish between epidemics of the

macroeconomic and micro-economic varieties, and between these and the syndrome of endemic failure, associated with pervasive government involvement. Each type has its characteristic warning signs – the availability of the relevant indicators is discussed in some detail – and a comprehensive prevention policy must take account of each.

Thus, for example, it is unwise to defer macroeconomic stabilization in the hope of concealing banking sector weakness. Likewise, a rigorous application to developing and transition economies of the consensus approach to microeconomic regulation should not be deferred. Political interference is the Achilles heel of any regulatory system: among other mechanisms, it may be possible to use disclosure rules and the pressures of globalization to increase the political attraction of regulatory enforcement.

It is fair to say that in most countries there are no predetermined, formal procedures for managing domestic financial crises with potential systemic implications. There are general understandings about the conditions under which the central bank should act as lender of last resort, but the significant degree of judgement that can still be applied implies a state of "constructive ambiguity" about what the central bank's response might be in different circumstances. Nor is the central bank likely to be the only part of the public sector involved. Treasuries, deposit insurance agencies and various supervisory bodies may all have legitimate interests in a crisis. Perhaps the only agreement that can be reached in advance is that the parties likely to be drawn into such a crisis should know each other and their respective objectives very well. This will help speed discussions and decisions under stressful circumstances when there is likely to be little time for lengthy deliberations.

The same points apply still more strongly at the international level. There are no formal agreements, but a general understanding does exist that the home country central bank is expected in the first instance to support its own financial institutions, wherever they operate. However, firm, prior commitments to particular patterns of official behavior would only invite bad behavior and moral hazard on the part of the private sector. In this regard, it is already bad enough that the public sector does sometimes have to get directly involved; for example in the case of the stock market crash in 1987, when a number of central banks provided liquidity support to various firms severely affected by it. Rather, as at the domestic level, the important thing is that those institutions and individuals likely to be affected by the crisis should know each other well and have well-established lines of communication in place. Fortunately, the international meetings which take place at the IMF, BIS and OECD, and in many other fora, serve this general purpose as well as more particular ones.

Turning for completeness to the issue of crisis resolution, this term normally refers to the orderly winding-up of the affairs of an international financial institution. The Bank of Credit and Commerce International S.A. (BCCI) affair made it clear that the laws of different countries need to be harmonized in some way. The UK and European authorities were of the view that the global assets of BCCI would be available to the liquidators. In contrast, US law made it appropriate for BCCI assets in the United States to be seized and used to offset liabilities to US citizens. At the level of principle, the global approach might seem the more appropriate one, but national legislation (particularly in the United States) will be required to put this into effect. As indicated by the experience of the major European countries, which tried and failed to harmonize their bankruptcy laws, this could take some time.

7.3 - Building a Robust Regulatory System

7.3.1 - The Consensus

The emergence of banking problems in developing countries has led to reappraisal of financial policy design in these countries. This reappraisal was able to draw on recent improvements in the design of banking regulations for industrial countries spearheaded by the work of the Basle Committee. The result has been a virtual consensus on many of the main regulatory structures that need to be put in place in order for the financial system to display robustness in the face of shocks.

The consensus view on financial policy begins with the idea that the system should be free of the onerous and highly distorting taxes and quasi-taxes (especially interest rates controlled at unrealistic levels) that were a

common feature of most banking systems in the past. Not only does the removal of these impositions free the bank's management to devote its attention to creditworthiness as the major criterion for lending decisions, but it ensures that the bank's decision-makers have an incentive to make sound loans.

The achievement of good results in prudential regulation (as seen by the consensus view) requires adequate flows of information, qualitative as well as quantitative; adequate standards of solvency with reference to the risks being assumed; and adequate powers and independence for the supervisory agency to take graduated action to prevent unsound behavior.

Of course one must also recognize the inevitable limitations of regulation. For example, solvency standards are only as good as the measure of capital. Supervision is relatively ineffective against fraud, especially when the burden of proof is on the regulator. The increasing complexity of market-related instruments held by banks and the speed with which their value can change sharply limits the value of occasional inspection and reporting. It will be some time before many of the systems that are now being put in place in industrial countries to try to keep up with this evolution can be transferred to developing countries. Regulators may be under pressures that induce them to forbear to intervene in the activities of unsound banks.

But above all, supervision will also be of little use if not backed up by a political will to move against what may be powerful financial interests for the sake of protecting the taxpayer from the costs of failure (a point to which we return below).

7.3.2 - Design of Regulation: Some Adaptations Needed for Developing Countries

For developing countries it is not, therefore, so much a matter of designing the regulations, as of ensuring that they are in place and effective. There are, however, a couple of important respects in which the industrial country regulatory structures are not adequate for the needs of developing countries.

One relates to the overall percentage capitalization requirement, and the other to the treatment of lending to government.

The capital requirements against risk assets chosen by the industrial country regulators were calibrated for industrial countries whose economies are generally larger and less vulnerable to exogenous shocks; furthermore, these ratios were adopted under pressure of international regulatory competition. They are not tough enough for most developing countries. Imposing higher requirements will appear onerous and possibly an impediment to financing development, but the conclusion seems inescapable if we wish to give the bank regulators in developing countries a realistic chance of intervening in a failing bank before all the capital is eroded. The establishment of appropriate capitalization levels for country circumstances is a matter that needs to be considered on a country-by-country basis. There is clearly a risk that increased capital requirements could lead to disintermediation and the booking of loans in offshore subsidiaries, so issues of international coordination may arise.

The assignment of a zero risk weighting to own-government debt is also questionable for developing countries, considering the frequent instances of direct and indirect arrears by developing country governments. The principle is often stated whereby a national government can always "print its own money" to repay the banks, and so need never be in default, but this may not be the case where a currency board system is in effect, where the country participates in a currency union, or where the government has otherwise forsworn the use of monetary financing. Even when governments have faced up to their loan delinquencies, they have sometimes secured preferential consolidation which has been tantamount to a partial default, so far as the banks' profit and loss account is concerned. All in all, there is sufficient reason to reject the idea that lending to your own government is without risk for banks.

7.3.3 - Speed Limits

Although the consensus approach recognizes that regulatory avoidance makes it no longer realistic or desirable to try to influence the structure of banking system portfolios on a long-term basis, some suggestions in the

direction of re-regulation have been mooted. The most promising of these, so far as bank soundness is concerned, is the proposal for some kind of "speed limits" on bank asset growth. This idea draws on the common observation that rapid growth in loan portfolios is often present in individual bank failures and, as we have seen, in some types of systemic crisis. Although regulators can always ex post target a bank with rapid loan growth for special examination, the damage may already have been done. Why not simply limit the rate of loan portfolio growth ex ante? Such an arbitrary friction may induce avoidance through the use of unregulated near-banks or offshore entities. However, if the speed limits are pitched sufficiently high, they will bind too rarely to trigger avoidance, considering the fixed costs that may be required to set up avoidance procedures.

Temporary speed limits are worth considering in a market that has many new and hence inexperienced entrants, and inadequate supervisory resources, or may be an effective way of choking off an incipient boom. But they are unlikely to feature as part of the optimal long-term tool-kit. Besides, excessive credit growth only predicts some crises: this measure has the feel about it of being a solution to "last year's problem".

But it would seem unwise to go beyond the idea of speed limits to entertain some of the more complex prudential rules which have been proposed with the intention of making the regulatory system more responsive to exogenous changes. For example, there has been the suggestion that capital ratios should be linked to macroeconomic conditions, thereby providing a more refined structure of incentives for the bank, and avoiding, for example, the possibility that the regulations could lead to credit policy being destabilizing (as when loan provisions increase in a recession, contributing to a credit crunch). While such complex incentive packages can be designed in theory, it is less clear that the theoretical constructs can be reliably transformed into soundly based operational rules. For developing countries at least, implementation of simple and sensible rules seems more urgent.

7.4 - Political Obstacles to Effective Regulation

Weak enforcement due to political interference is the Achilles' heel of any regulatory system. Early response to emergent banking problems has been repeatedly inhibited by the political protection against closure which unsound banks and imprudent or self-serving bankers appear to have enjoyed. The resulting delays have deepened the ensuing crisis.

Designing institutional and political arrangements that will make such protection less likely is a difficult challenge. For one thing, bank intervention is often not seen as a desirable political good. Two of the possibilities that have been suggested to enhance the political desirability of sound banking and thereby strengthen the hand of the regulator, namely limiting deposit protection and greater disclosure, are worth considering. When depositors are fully indemnified from banking failure, the major potential beneficiaries of sound banking are the taxpayers, who represent a normally diffuse lobby. Not only will unprotected but better informed depositors be more cautious about where they place their funds, but they will also see the regulators as their agents and clamor for early regulatory intervention.

7.5 - Conclusion

Closer international cooperation in banking regulation offers clear advantages to all countries in the attempt to forestall future systemic problems of each of the types we have discussed. Macroeconomic instability, though it has an important domestic component, is often linked to external shocks. Microeconomic deficiencies are often tied in with foreign exchange and offshore transactions requiring close and trusting contacts between regulators in different countries. Relatively strong externalities mean that each country gains from the quality of regulation and of macroeconomic stabilization policy in its financial and trading partners.

But our review also highlights the need to distinguish between technicalities and errors on the one hand, and abuse on the other. Policy errors have certainly played a part, and they can be addressed through better legislation and regulatory design, improved training of supervisors and adequate resources of the supervisory authority, and greater attention to the importance of avoiding macroeconomic overheating. But it is in the area of

reducing what must, in conventional terms, be regarded as abuses that the most important reforms must be sought.

From the economist's perspective, the most interesting way of curbing abuse is by altering the incentive structure faced by the various participants: bankers, depositors, regulators and the government itself. When it comes to the incentive structure for government, we move into the Grey area between fiscal policy on the one hand and issues of governance and even of political corruption on the other. These issues must be squarely faced if there is to be decisive progress in reducing the fragility of banking systems.

To some extent, lessons will have been learnt from recent experience. The stagnation or failure of banking systems that have been pressed too hard for quasi-fiscal resources will have brought home to many the short-term nature of the fiscal gains to be made. In some cases, the politicians who undermined the banking system have still been in power when a collapse presented them with what was only a slightly deferred bill. But short-termism is not likely to be completely eliminated by such experience, and one must seek stronger institutional arrangements within which governments and politicians are less likely to act in such a way as to generate financial collapse.

Effectively we are seeking a mechanism whereby governments can constrain themselves and their successors to avoid short-termism and abuses, thereby strengthening the hand of the national bank regulators. It is in this context that the establishment of an international sanction or seal of approval becomes desirable.

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