INTERNET BANKING
FINANCIAL REFORM
GOOD GOVERNANCE
REHABILITATION
TRANSPAR
RISK MANAGEMENT
BANK OF THAILAND
2000
Supervision Report
MESSAGE FROM THE GOVERNOR

Thailand has witnessed enormous changes over the past four years: it ended a period of unprecedented economic growth, entered into the worst financial crisis in the country's history, and is now working to build a sustainable economy based upon a safe and sound financial sector.

Prior to 1997, management of financial institutions and the Bank of Thailand itself did not fully and accurately identify structural weaknesses that pointed to an impending financial collapse. A positive side effect to come from a crisis such as the one experienced in Thailand is that the misguided practices and policy weaknesses become very readily apparent to everyone. Having had these weaknesses so poignantly identified, the Bank of Thailand has initiated an ambitious program of financial sector reform to prevent a similar crisis from occurring again.

It is often said that a country can have a strong banking system and a weak economy, but it can never have a weak banking system and a strong economy. It follows then, that the Bank of Thailand, as caretaker and overseer of the banking system, must be able to effectively supervise banks to ensure their safety and soundness. Measures aimed at the Bank of Thailand's supervisory policies, procedures, and practices as well as the activities of banks and the financial sector are being taken to achieve the goal of stability in the banking system.
I am pleased to present to you the Bank of Thailand's Supervision Report 2000. The Report presents measures taken to stabilize the banking system over the past four years and an assessment of where it stands today. It also identifies the steps that the Bank of Thailand has taken to strengthen the supervision process and describes the supervisory strategy for the coming years.

M.R. Chatu Mongol Sonakul
Governor
Bank of Thailand
SUPERVISION MISSION AND GOALS

The financial system has changed radically during the past decade. In order to remain competitive, financial institutions have had to adapt to these changes. As the supervisory authority of commercial banks (including International Banking Facilities), finance companies, finance and securities companies, credit foncier companies and asset management companies, the Bank of Thailand (BOT) must also respond to these dynamic developments. The establishment of core purpose, vision and goals for the supervision of financial institutions will guide us to perform our tasks of maintaining the safety and soundness of financial institutions more effectively.

Vision, Objective, and Policy for Financial Institutions
Supervision and Examination

The supervision of financial institutions is under the responsibility of the Financial Institutions Policy Group and the Financial Institutions Supervision Group. The Groups' core purposes are 1) to strengthen the financial sector's competitiveness, efficiency and stability by promoting the adoption of international best practices and market disciplines; 2) to ensure that financial institutions are able to withstand changes and problems inherent in the financial institution system; and 3) to provide efficient and effective on-site and off-site supervision of each financial institution. In order to achieve the core purposes, the Groups aim to develop the highest standard of professionalism, be able to anticipate future problems and trends, and provide timely responses to the changing environment. Three important main strategic changes have been made. First, a
clear supervision policy has been established. Second, there has been a shift from traditional to risk-based examination. And third, new workflows have been instituted to ensure efficient and effective supervision work and management process.

Supervisory policy will encourage financial institutions to take major role in supervising themselves, while under this approach, the supervision methodologies of the regulator would be based upon an assessment of bank management's ability to identify, measure, monitor, and control risks. As such, supervisors are responsible for assessing how well a financial institution manages its risk over time as well as at a particular point in time. Furthermore, the management must operate in accordance with the principle of good governance and the adequate information disclosure to the public.
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1. OVERVIEW OF THE FINANCIAL SECTOR

1.1 Structure of the Financial Sector

The Thai financial sector consists of many different types of financial institutions supervised by different authorities (Table 1) based on their business activities. In terms of asset size and of funds mobilized, the most dominant financial institutions are commercial banks, finance companies, finance and securities companies, and asset management companies.

Table 1. Type of Financial Institutions and Their Supervisory Authority

<table>
<thead>
<tr>
<th>Financial Institutions</th>
<th>Supervisory Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Commercial banks</td>
<td>Bank of Thailand</td>
</tr>
<tr>
<td>- Locally-incorporated banks</td>
<td></td>
</tr>
<tr>
<td>- Branches of foreign banks</td>
<td></td>
</tr>
<tr>
<td>- International Banking Facilities (IBFs)</td>
<td></td>
</tr>
<tr>
<td>- Finance companies</td>
<td></td>
</tr>
<tr>
<td>- Finance and securities companies</td>
<td></td>
</tr>
<tr>
<td>- Credit foncier companies</td>
<td></td>
</tr>
<tr>
<td>- Asset management companies (AMCs)</td>
<td></td>
</tr>
<tr>
<td>- Securities companies</td>
<td>Securities and Exchange Commission of Thailand (SEC)</td>
</tr>
<tr>
<td>- Mutual fund management companies</td>
<td></td>
</tr>
<tr>
<td>- Provident fund</td>
<td></td>
</tr>
<tr>
<td>- Specialized financial institutions established by the Government</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>- Savings cooperatives</td>
<td>Ministry of Agriculture and Cooperatives</td>
</tr>
<tr>
<td>- Agricultural cooperatives</td>
<td></td>
</tr>
<tr>
<td>- Life insurance companies</td>
<td>Ministry of Commerce</td>
</tr>
<tr>
<td>- Social security fund</td>
<td>Ministry of Labour and Social Welfare</td>
</tr>
<tr>
<td>- Pawnshops</td>
<td>Ministry of Interior</td>
</tr>
</tbody>
</table>
The report will focus only on the main types of financial institutions: commercial banks, finance companies, asset management companies, and specialized financial institutions.

1.1.1 The Banking Sector

The banking sector comprises commercial banks, restricted-licensed banks, and International Banking Facilities (IBFs).

(1) Commercial Banks

There are a total of 34 commercial banks operating in Thailand, of which 13 are locally incorporated\(^1\) and 21 are branches of foreign banks.

All commercial banking businesses undertaken by local and foreign banks in Thailand are supervised and regulated by the Bank of Thailand (BOT) and operate under the Commercial Banking Act B.E. 2505 (1962) amended in 1979, 1992, 1997, and 1998. The Act authorises the Ministry of Finance (MOF) and the BOT to issue regulatory guidelines on the type of business, prudential requirements, and reporting standards, etc. applicable to commercial banks.

Commercial banks may carry out banking businesses, generally defined as accepting time, savings, and demand deposits, issuing negotiable certificates of deposits, and borrowing and lending of money. While the concept of universal banking does not yet exist in Thailand, commercial banks may engage in a number of other banking-related businesses, including foreign exchange business and non-equity related investment banking activities such as financial consulting services.

\(^{1}\) Locally-incorporated commercial banks consist of private banks majority owned by Thais, private banks majority owned by foreigners and state-owned banks.
(2) Restricted-Licensed Banks

Restricted-licensed bank is permitted to engage in all commercial banking activities with the exception that it may not offer checking deposits. The restricted-licensed bank may, after a period of operation, apply for a full-licensed bank status under conditions set by the MOF. Generally, these conditions will be maintenance of a minimum capital adequacy ratio, volume of business, submission of a viable business plan, and maintenance of sound corporate governance practices.

At present, only one application to set up a restricted-licensed bank has been received; it is awaiting final approval from the Finance Minister. The restricted-licensed bank will be an incentive for mergers of non-bank financial institutions as detailed in section 2.7

(3) International Banking Facilities (IBFs)

IBFs are offshore units of banks which provide credits to both overseas and local businesses. Their sources of funds must be from overseas, generally from the head offices, in case of foreign banks.

IBFs may be set up in Bangkok (BIBFs) or in the provinces (PIBFs). In general, IBF transactions must not be denominated in Thai currency with the exception of out-out Baht transactions and a limited scope of transactions permitted by PIBFs.

As of end-December 2000, there are 40 BIBFs, and 8 PIBFs.
1.1.2 The Non-Banking Sector

Many types of financial institutions make up the non-banking financial sector, this report, however, will cover only major types of institutions, namely, finance companies, superfinance companies, securities companies, credit foncier (housing finance) companies, and asset management companies.

As of end-December 2000, there are 16 finance companies, 4 finance and securities companies, 1 superfinance company, 36 securities companies, 10 credit foncier companies, and 14 asset management companies (4 companies are majority owned by state-owned locally-incorporated banks and the remainder are majority owned by private locally-incorporated banks).

(1) Finance Companies, Superfinance Companies, Finance and Securities Companies, Credit Foncier Companies and Securities Companies

Finance companies and finance and securities companies are established and operate within the Act on the Undertaking of Finance Business, Securities Business, and Credit Foncier Business, B.E. 2522 (1979) amended in 1992, 1997, and 1998. They are supervised by the BOT. Securities companies, however, are governed by the Securities and Exchange Act B.E. 2535 (1992) with the Securities and Exchange Commission (SEC) acting as the supervisory authority.

Finance companies, finance and securities companies, and credit foncier companies' scope of business is similar to that of banks. The main differences between these institutions and commercial banks are that these companies obtain their funding by issuing promissory notes, their credit facilities must not be related to trade financing, and they are not allowed to provide foreign exchange services.
Superfinance companies\(^1\) are allowed to accept fixed deposits as well as savings deposits by issuing passbooks and may provide foreign exchange related services. Superfinance companies may open branch offices in Bangkok and suburbs. There is currently only one superfinance company: Asia Credit PCL\(^2\).

Securities companies’ scope of business covers most traditional investment banking activities including securities brokerage and trading, and the management of securities issuance and investment services. They do not accept deposit or extend credit.

(2) **Asset Management Companies (AMCs)**

Asset management companies (AMCs) are set up by financial institutions and regulated by the BOT under the AMC Act B.E. 2541 (1998). The role of an AMC is to manage distressed assets transferred to it from financial institutions, usually its parent. The AMC may resolve bad assets through debt restructuring, foreclosure and sale of assets, or legal action. To facilitate debt resolution, AMCs may also provide additional credit facilities, securitize assets, or accept and hold equity in corporate debtors through debt-equity swaps.

### 1.1.3 Specialized Financial Institutions (SFIs)

SFIs are under the supervision of the MOF. Beginning in 1999, however, the MOF delegated its examination authority to the BOT. Currently, studies are under way to explore ways in which the operation and supervision of these institutions can be improved.

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1. The superfinance company concept stemmed from a policy to encourage mergers among finance companies and finance and securities companies. Superfinance companies should have minimum total net assets of 40,000 million Baht with tier-1 capital of at least 4,000 million Baht. This policy, however, was later superseded by the policy to create restricted-licensed banks in 1998.
2. Its former names are Asia Credit Finance PCL (pre-1998) and SG Asia Credit PCL (1998–1999).
There are 8 specialized financial institutions:
- Asset Management Corporation
- Bank for Agriculture and Agricultural Cooperatives
- Export–Import Bank of Thailand
- The Government Savings Bank
- Government Housing Bank
- The Industrial Finance Corporation of Thailand
- The Small Industry Finance Corporation
- Secondary Mortgage Corporation

1.2 Delivery Channels for Financial Services

The various types of delivery channels used by financial institutions in Thailand include branches, sub-branches, agencies, representative offices, automatic teller machines (ATMs), telephone banking, electronic and internet banking services.

Table 2 shows that in 2000, the number of locally-incorporated commercial bank branches and other offices fell by 90 units to 3,807 at end-December 2000.

<table>
<thead>
<tr>
<th>Branches and Offices</th>
<th>Majority-owned by Thais Banks A</th>
<th>Majority-owned by Foreigners Banks B</th>
<th>Total Privately-owned Banks C</th>
<th>State-owned Banks D</th>
<th>Total Banks E</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-Dec. 1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total branches/offices</td>
<td>2,383</td>
<td>355</td>
<td>2,738</td>
<td>1,159</td>
<td>3,897</td>
</tr>
<tr>
<td>Jan-Dec. 2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New branch/office</td>
<td>24</td>
<td>10</td>
<td>34</td>
<td>5</td>
<td>39</td>
</tr>
<tr>
<td>Branch/office closures</td>
<td>19</td>
<td>41</td>
<td>60</td>
<td>69</td>
<td>129</td>
</tr>
<tr>
<td>End-Dec. 2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total branches/offices</td>
<td>2,388</td>
<td>324</td>
<td>2,712</td>
<td>1,095</td>
<td>3,807</td>
</tr>
</tbody>
</table>

Remark: A+B=C, C+D=E
In addition to brick and mortar branches, there has been a continuous increase in the number of ATM cards and machines since 1996 as shown in Table 3 as an ATM machine can now render a wide range of services, not only withdrawal of cash but also transfer of money and payment of utility bills. Furthermore, development in communication technology has brought a new era to the financial system. As of end-December 2000, 10 commercial banks (4 locally-incorporated banks and 6 branches of foreign banks) and one finance company provide internet banking services.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Cards (Thousands)</th>
<th>Number of Machines</th>
<th>Volume of Transactions (Thousands of Trans)</th>
<th>Value of Transactions (Million Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>15,557</td>
<td>4,284</td>
<td>274,737</td>
<td>656,744</td>
</tr>
<tr>
<td>1997</td>
<td>17,823</td>
<td>4,835</td>
<td>323,719</td>
<td>780,814</td>
</tr>
<tr>
<td>1998</td>
<td>15,698</td>
<td>5,188</td>
<td>370,830</td>
<td>818,562</td>
</tr>
<tr>
<td>1999</td>
<td>17,466</td>
<td>5,322</td>
<td>333,585*</td>
<td>938,150*</td>
</tr>
<tr>
<td>2000</td>
<td>20,682</td>
<td>5,901</td>
<td>383,599</td>
<td>1,286,850</td>
</tr>
</tbody>
</table>

* Estimated figures due to incomplete report for the first half of 1999

1.3 Ownership Structure

Before the financial crisis of 1997, all locally-incorporated banks were majority owned by Thai citizens. The effects of the crisis left most banks in need of large amounts of new capital which could not be raised from local investors who were also affected by the crisis. Therefore, strategic partners of many locally-incorporated banks are foreigners. As a consequence, foreign ownership in locally-incorporated banks has increased as shown in Table 4.
Table 4. Ownership Structure of Financial Institutions

<table>
<thead>
<tr>
<th>Type of FIs</th>
<th>Privately-owned FIs</th>
<th>State-owned FIs</th>
<th>Total</th>
<th>% of Total Equity of the System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Majority-owned by Thais*</td>
<td>Majority-owned by Foreigners*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>% of Equity**</td>
<td>No.</td>
<td>% of Equity**</td>
<td>No.</td>
</tr>
<tr>
<td>1. Commercial Banks</td>
<td>5</td>
<td>29.74</td>
<td>4</td>
<td>16.4</td>
</tr>
<tr>
<td>2. Fin/Fin &amp; Sec Cos</td>
<td>14</td>
<td>79.83</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>3. Credit Foncier Cos</td>
<td>10</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>36.44</td>
<td>10</td>
<td>14.77</td>
</tr>
</tbody>
</table>

* Classified by 50% of ownership structure

** % of total equity by each type of FIs
2. FINANCIAL SECTOR REFORM

During the financial crisis that began in Thailand in 1997, the economy contracted, and banks faced severe liquidity shortages and a sharp deterioration in the quality of their assets. In order to reform and rehabilitate the financial system, the authorities have implemented the following measures.

2.1 Closure of Finance Companies and Establishment of the Financial Sector Restructuring Authority and the Asset Management Corporation

2.1.1 Closure of 56 Finance Companies

Prior to the 1997 crisis, 91 finance companies operated in Thailand, providing banking services to individual consumers. In order to maintain integrity in the financial system, financially viable finance companies were separated from those deemed insolvent. On June 27, 1997, the operations of 16 insolvent and liquidity-strapped finance companies were suspended, pending the submission and acceptance by the BOT of satisfactory restructuring plans. As the liquidity and asset quality problems intensified, an additional 42 finance companies became insolvent and had their licenses suspended on August 5, 1997.

To stem further panic, the authorities arranged a compensation scheme for bearers of promissory notes or certificates of deposit issued by the 58 finance companies whose operations had been suspended. The scheme involved Financial Institutions Development Fund (FIDF) brokered exchange of promissory notes and certificates of deposit issued by the 58 finance companies for certificates of deposit issued by selected commercial banks.
To prevent further liquidity problems and relieve systemic risk, as well as to quickly restore public confidence, the Government decided to provide, through the FIDF, a blanket guarantee covering all of the deposits and liabilities of the remaining financial institutions. The 58 suspended companies were ordered to submit rehabilitation plans and undergo due diligence by independent accountants. The rehabilitation plans, which included recapitalization proposals, mergers among suspended finance companies and mergers with other stronger and better-capitalized financial institutions, were evaluated based upon rigorous criteria.¹

On December 8, 1997, the Government made an announcement to allow only 2 of the 58 suspended finance companies to resume business. The remaining 56 companies, with total assets of about 860 billion Baht or 10.68% of the financial sector, were closed and liquidated under the supervision of the Financial Sector Restructuring Authority (FRA).

2.1.2 The Financial Sector Restructuring Authority (FRA)

The Financial Sector Restructuring Authority (FRA) was established on October 24, 1997 as an independent organization under the MOF. Its responsibility was to review the rehabilitation plans of 58 finance companies whose operations were suspended by the order of the Finance Minister, to oversee the liquidation process, and to safeguard the interests of bona fide depositors and creditors of the suspended companies. Auctions of assets held by the 56 finance companies began in February 1998 with the core asset disposal completed in November 1999. The average return on the disposal of assets was approximately 25-30% of the face value.

¹ The criteria have been previously agreed by the Committee to Supervise Mergers and Acquisitions of Financial Institutions and later ratified by the FRA Board. These criteria included adequate recapitalization of the suspended firms, plans for repayment of debt, sufficient and reliable sources of funds for liquidity management and quality of management. The criteria were strictly applied with no waivers or exemptions.
2.1.3 **The Asset Management Corporation**

The Asset Management Corporation was set up in November 1997 as an independent governmental body. Its sole purpose is to act as a bidder of last resort for the impaired assets of the 56 finance companies auctioned by the FRA. As of December 31, 2000, the Asset Management Corporation held assets totaling 25.8 billion Baht.

2.2 **Blanket Guarantee of Depositors and Creditors**

Despite the closure of 58 failed finance companies in 1997 (2 were later permitted to resume operations), withdrawal of funds from the remaining finance companies continued unabated and threatened to spread to the rest of the financial system. To stop the crisis, the Government announced on August 5, 1997 a blanket guarantee, in local currency terms, for both depositors and creditors of domestic and foreign financial institutions operating in Thailand. The guarantee, implemented through the state-owned Financial Institutions Development Fund (FIDF), applied only to financial institutions which had not been closed or had not ceased making payments, and it covered full principal and full or (under certain conditions) partial interest amount. The public panic was thus contained.

Since the blanket guarantee became effective, the FIDF has made repayments to depositors and creditors of five financial institutions: Bangkok Bank of Commerce PCL, LPN Credit Foncier Ltd., The Ocean Finance Co., Ltd., Thai Capital Finance Co., Ltd., and Phatra Thanakit PCL.

Once financial institutions are adequately stable and a deposit insurance agency is established, the blanket guarantee of depositors and creditors will be discontinued. A date for the repeal of the blanket guarantee has not yet been determined.
2.3 Relaxation of Restrictions on Foreign Ownership

To enable troubled financial institutions to attract new capital, on June 27, 1997 the Government issued an Emergency Decree amending the Commercial Banking Act B.E. 2505 (1962) (No. 2). The Emergency Decree relaxed existing restrictions on the foreign ownership of commercial banks by allowing 100% shareholding for foreign investors who step in to resolve or rehabilitate financial institutions, subject to certain conditions. Specifically, foreign investors are permitted to acquire a majority ownership interest in locally-incorporated financial institutions for a period of 10 years, following which additional shares may not be acquired until the ownership interest (both existing and new holdings) are maintained at 49% of total shares outstanding or less. Currently, there are two banks (excluding intervened banks) and one finance company which are majority owned by foreigners, namely, 1) Bank of Asia PCL (BOA), which was 75% acquired by ABN-AMRO Bank N.V. in September 1998; 2) DBS Thai Danu Bank PCL (DBTB), 48.73% acquired by The Development Bank of Singapore Ltd. in March 1998; and 3) Asia Credit Finance PCL\(^1\), which in 1998 saw Societe Generale's increase its shareholding to 51%, from 18% before lowering to 36% after Asia Credit Finance PCL\(^1\)'s participation in the August 14, 1998 Capital Support Schemes (see below).

2.4 August 14 Financial Restructuring Package

As a further measure to strengthen the financial sector, the Government announced a comprehensive financial restructuring package on August 14, 1998. The package focused on 4 main aspects: (1) accelerated consolidation of banks and finance companies through additional interventions; (2) encouragement of private investment in the banking system; (3) provision of public funds to recapitalize viable financial institutions; and (4) development of framework to create private asset management companies (AMCs).

\(^1\)The company's current name is Asia Credit PCL.
2.4.1 Intervention, Merger and Privatization of Weak Institutions

Between 1997 and 1999, 7 banks and 69 finance companies were intervened. Resolution strategies for the intervened financial institutions were based on the following objectives:

- Be cost-efficient
- Facilitate consolidation of the banking sector
- Ensure credibility and transparency
- Enhance confidence in the banking system
- Ensure consistency with the capital support facilities

In resolving the problem banks, the authority attempted to resolve the problems using a least-cost approach. A capital writedown would first be ordered, thus forcing the existing shareholders to shoulder the loss prior to the injection of new capital by the FIDF. Lessons learnt from the past experience indicated that keeping intervened banks open would provide continuation of services to the customers and hence preventing deterioration of assets. However, rather than keeping them as state banks which would not be practical to manage, Thai and foreign strategic investors have been invited to invest in the banks as their expertise would be needed to revive the banks' operation.

The followings are the intervened banks:

**Bangkok Bank of Commerce PCL (BBC)**

Good assets of the failed BBC were transferred to KTB on October 12, 1998, while all past-due debtors (NPLs) were left at BBC which in turn was eventually converted into an AMC. The FIDF contracted with outside experts to maximize the recovery from BBC's NPLs. Because KTB absorbed all of BBC's liabilities, the FIDF converted all of its loans to BBC into KTB's capital.
First Bangkok City Bank PCL (FBCB)

FBCB merged with KTB by transferring all of its assets, liabilities and employees to KTB. Yield maintenance and loss sharing arrangements were offered by the FIDF as part of the package.

Laemthong Bank PCL (LTB), Bangkok Metropolitan Bank PCL (BMB), Siam City Bank PCL (SCIB) and Nakornthon Bank PCL (NTB)

On August 14, 1998 the FIDF intervened in LTB. LTB merged its operations into and with Radanasin Bank (RB), 75.02% of whose shares were eventually sold to United Overseas Bank Ltd. (UOB). Standard Chartered Bank (SCB) acquired a 75% ownership interest in NTB. In both cases the FIDF provided a yield maintenance and gain/loss sharing scheme to the acquirer.

The privatization of BMB and SCIB did not materialize and the plans were put on hold temporarily. Meanwhile, they are being managed by external professionals.

Union Bank of Bangkok PCL (UBB)

UBB and 5 other finance companies were intervened on August 14, 1998. As part of the resolution plan, these institutions and another 7 finance companies that had been previously intervened were consolidated with Krung Thai Thanakit Finance PCL (KTT). The consolidated entity then changed its name to BankThai PCL (BT). The FIDF ultimately intends to privatize BT.

2.4.2 Recapitalization Scheme

The capital support scheme of the MOF was aimed at strengthening the financial system by providing funds to assist the recapitalization of viable financial institutions, which would enable
them to make loans. The scheme started on August 14, 1998 and ended on December 31, 2000. Thirteen finance companies have been recapitalized under tier-1 and tier-2 support schemes, with assistance totaling 73,734 million Baht being provided.

**Tier-1 Capital Support Facility**

In order to be eligible for the MOF's tier-1 capital support, a financial institution was required to immediately adopt, and implement, full Loan Classification and Provisioning (LCP) rules, without benefit of the phase in period. Capital injections under this facility took the form of the placement of 10 years government bonds. In exchange, the Government would acquire preferred shares of the applying financial institution, in an amount sufficient to raise the BIS tier-1 ratio to 2.5%. Thereafter, the MOF and new private investors would acquire any remaining of the preferred shares in equal amount up to the point where the minimum amount of capital required by the BOT is achieved.

From the commencement of the scheme until the end of the year 2000, 2 commercial banks, 1 finance company and 1 finance and securities company applied and received the support. Total capital of 61,304 million Baht was injected into financial institutions under tier-1 support scheme.

**Tier-2 Capital Support Facility**

The amount of tier-2 capital support depended on the amount of loss resulting from debt restructuring, net of previous provisioning and the size of additional new lending.

Capital injections under this facility took the form of government bonds in exchange for bank's qualified subordinated debts.
In 2000, the MOF purchased subordinated debts of three commercial banks and four finance companies, totaling 5,052 million Baht. A total capital of 12,430 million Baht was injected into financial institutions under the tier-2 scheme.

2.4.3 Private Asset Management Company (AMC)

Many financial institutions were unable to raise fresh capital or grant credits due to their high level of NPLs. These problems could be mitigated somewhat by transferring the NPLs to an AMC. As such, the NPLs would be managed by specialized experts who could speed up the NPLs resolution or increase the recovery rate. When commercial banks are left with mostly good assets, they can be expected to resume their normal banking business sooner. To support this process, the Government enacted the Emergency Decree on Asset Management Company, B.E. 2541 (1998) which grants privileges in terms of fees and taxes arising from the sale and transfer of assets of the financial institutions to the AMC.

Financial institutions which own more than 50% of an AMC's shares must report its financial statements and calculate all prudential ratios on a consolidated basis.

2.5 Supervisory Standards Upgrade

In parallel with efforts to rehabilitate weak financial institutions, the BOT has revised and upgraded its supervisory standards to be consistent with international best practices. New policies and procedures include guidelines on accruing interest income, asset valuation, loan review, asset classification and provisioning. These regulatory changes were announced in June 1998 and became effective for the accounting period ending on December 31, 1998.
2.5.1 Asset Classification and Provision

Prior to December 31, 1998, financial institutions were required to classify their impaired assets into 3 categories: substandard, doubtful, and loss with loans being considered impaired or substandard after being delinquent for 6 months. Beginning with the accounting period ending on December 31, 1998 onward, financial institutions were required to classify and provision for their assets both on- and off-balance sheets according to the obligors' financial condition and debt repayment capability as well as the length of non-payments. Under the new rules, a loan which is 3 month overdue must be classified as substandard at the minimum.

In addition, provisioning requirements were assigned to each asset classification as follows:

(1) Assets classified as Pass require 1% provision
(2) Assets classified as Special Mention require 2% provision
(3) Assets classified as Substandard require 20% provision
(4) Assets classified as Doubtful require 50% provision
(5) Assets classified as Doubtful of Loss require 100% provision
(6) Assets classified as Loss shall be written off

Financial institutions were permitted to phase-in the new provisioning requirements as set forth by the new asset classification and provision rules beginning December 31, 1998 through December 31, 2000.

The BOT has also issued regulations for the classification of loans and establishment of provisions following a restructuring. The rules permit reclassification of restructured loans on the day of restructuring to "substandard" or "pass". These rules were designed to reduce the potential financial burden on financial institutions during the period of high impaired loans.
2.5.2 Loan Review

To improve the credit underwriting and loan review process, the BOT, on August 16, 2000, instructed financial institutions to reexamine and improve their existing lending policies, practices, and guidelines, as well as policies relating their credit extension, contingent liability undertaking, securities investment, as well as their sale of assets. It is also required that loan review officers be independent from individuals or committees who are responsible for credit risk management or for credit extension or for audit after the loans have been extended. Furthermore, financial institutions are required to submit the audit report on their credit extension and contingent liability undertaking as well.

2.5.3 Suspension of Interest Accrual

In compliance with international standards, on January 1, 1999 the BOT has revised its guidelines on the accrual of interest. The new rules require financial institutions to cease accruing interest on all loans 3-month overdue.

2.5.4 Asset Valuation

Under the current regulation, asset classification does not depend on collateral values, nevertheless financial institutions are allowed to deduct collateral—at an appropriate market valuation—from the loan book values prior to the calculation of any required provision. In principle, the appraised value should closely reflect the collateral's current market value. The BOT imposed additional appraisal and valuation requirements to be used when financial institutions calculate the required provision for impaired loans and the loss from debt restructuring. Specifically, for financial institutions with capital less than 8 billion Baht, independently performed appraisals are required for loans with a book value greater than 25 million Baht. Those institutions with capital of at least 8 billion
Baht are required to obtain an independently performed appraisal on all loans with a book value of greater than 50 million Baht. For other small-size loans, the financial institution may carry out their own internal collateral valuation.

2.6 Corporate Debt Restructuring

2.6.1 Measures Undertaken

In 1998 and 1999 the BOT took the following actions to promote corporate debt restructuring:
- Issued regulations on debt restructuring, asset classification, and collateral valuation.
- Developed and improved reporting systems for debt restructuring, NPLs, and classified assets.
- Established the Corporate Debt Restructuring Advisory Committee (CDRAC) to set policies and guidelines, monitor, and otherwise facilitate and expedite corporate debt restructuring.
- Supported government initiatives to set up Provincial Debt Restructuring Subcommittees and contributed to provincial efforts to monitor debt restructuring.
- Established the Asset Management Corporation and supported the creation of asset management companies (AMCs) by financial institutions.

In 2000, the BOT continued its efforts to facilitate debt restructuring by taking the following initiatives:
- Continued development of regulations for debt restructuring, asset classification, and collateral valuation.
- Issued regulations relating to financial institution-owned AMCs.
- Developed a credit guarantee program to support extension of new working capital loans to restructured non-performing SME debtors with the SICGC (the Small Industry Credit Guarantee Corporation).
- Expanded CDRAC’s role to include the resolution of bad assets held by AMCs.
2.6.2 Corporate Debt Restructuring Under CDRAC

CDRAC was established on June 25, 1998 to facilitate the restructuring of debts held by financial institutions. Following the establishment of CDRAC, the Corporate Debt Restructuring Advisory Subcommittee (CDRAS) and the Corporate Debt Restructuring Group (CDRG) were later set up to provide operative and policy support to aid CDRAC in carrying out its mission.

CDRAC has contributed substantially to the setting of debt restructuring standards of practice and the development of a framework for voluntary out-of-court restructurings. CDRAC has also promoted regulatory and tax incentives and developed and implemented binding contractual agreements setting out the process of debt restructuring for debtors and creditors.

Units established to assist in CDRAC’s work include CDRAS and the Office of Corporate Debt Restructuring Advisory Committee later renamed the CDRG. CDRG is responsible for studying, analyzing, monitoring and recommending policies pertaining to debt restructuring, as well as coordinating with relevant public and private agencies.

2.6.3 Development of a Framework for Debt Restructuring

Regulatory Incentives for Debt Restructuring

In 1998, in order to facilitate and expedite debt restructuring for both debtors and financial creditors, CDRAC coordinated with the Revenue Department, the Land Department, and several other government agencies to agree upon appropriate concessions for debt restructuring. Incentives include concessions on various taxes, mortgage registration fees, ownership transfer fees, concessions on the ceiling for holding equity, and operations of hire purchase and
leasing business. Originally set to expire at year-end 1999, the concessions have now been extended until year-end 2001.

**The Framework for Corporate Debt Restructuring in Thailand**

A Framework for Corporate Debt Restructuring in Thailand (Framework) was developed to introduce consistent and practical standards for debt restructuring. It sets out principles and accepted business practices for voluntary debt restructuring of large multi-creditor cases. Jointly drafted by the Association of Finance Companies, the Board of Trade of Thailand, the Foreign Banks' Association, the Federation of Thai Industries, and the Thai Bankers' Association, the Framework was approved by CDRAC, and acknowledged and signed by each organization on the August 25, 1998.

**Debtor-Creditor and Inter-Creditor Agreements**

The Debtor-Creditor Agreement on Debt Restructuring Process and the Inter-Creditor Agreement on Restructure Plan Votes and Executive Decision Panel Procedures (Debtor-Creditor and Inter-Creditor Agreements or DCA-ICA) became effective on March 19, 1999. The Agreements and process established under the aforementioned documents, allow financial creditors to complete debt restructuring negotiations with approved CDRAC target debtors following prescribed procedures and with the assistance of CDRAC.

The DCA-ICA is first signed by the financial institution and later by the CDRAC target debtor. The agreement, however, becomes effective only when the debtor signs a Debtor Accession form agreeing to be subject to the DCA-ICA.
CDRAC member organizations drafted the DCA-ICA to serve as a binding agreement that establishes the process, procedures, and timeframe for multi-creditor debt restructuring. The DCA-ICA sets out the debt restructuring process beginning from the first creditors' meeting to the providing of information by the debtor, to the formation, proposal, and voting on a restructuring plan. During the debt renegotiation discussions, participants may request that CDRAC appoint a mediator to provide non-binding advice and recommendations to facilitate the restructuring process.

The voting requirements to approve a restructuring plan are consistent with those contained in the Bankruptcy Act (BA). In order to obtain Sufficient Plan Approval, creditors representing 75% of the total loans under restructuring or 50% of all creditors must approve the plan. If Sufficient Plan Approval is not obtained, a second vote takes place. If approval is not successful, but either 50% of the total loans under restructuring or 50% of all creditors approve the plan, then it will be sent to the Executive Decision Panel (EDP) for resolution. If this threshold is not achieved, the creditors must use the legal system and courts to collect loans outstanding.

In cases where a restructuring plan has been referred to an EDP, its decision shall be binding on all signatories. Only in cases where the debtor has over 1 billion Baht in total credits outstanding may creditors opt out of the EDP decision.

In total, completion of a restructuring using DCA-ICA ranges from 5-7 months. At year-end 2000 CDRAC had approved 2,813 target debtors with loans of 2,303,261 million Baht for restructuring using DCA-ICA.
**Simplified Agreement**

The Simplified Agreement (SA) was drafted by the Thai Bankers' Association and the Association of Finance Companies to create an efficient debt restructuring process for bilateral negotiations with small- and medium-sized cases involving one or few creditors.

Similar to the DCA-ICA, financial creditors under the SA agree to engage in restructuring negotiations with CDRAC approved target debtors. The SA becomes effective when the target debtor signs the SA Debtor Accession form. The SA has established processes and timeframes for restructuring negotiations where debtors and creditors have an option to request non-binding mediation advice if necessary.

The timeframe for completion of a restructuring using the SA ranges from 60-90 days.

### 2.6.4 Progress in Debt Restructuring

The success of the debt restructuring process has been a key contributor to the fall in NPLs from 38.52% of total loans in December 1999 to 17.91% in December 2000.

From CDRAC's inception through year-end 2000, 12,020 debtors, representing loans totaling 2,602,090 million Baht, have been approved by CDRAC to have their loans restructured using its procedures. Of this amount, 6,239 debtors or 1,155,363 million Baht have completed the process. Restructurings have been most successful in the commerce and personal consumption sectors with the most common method of restructuring being an extension of the credit's maturity, debt-to-equity conversions, and debt forgiveness.
Separately, financial institutions have undertaken some 428,447 loan restructurings without the involvement of CDRAC. Of this amount, 352,196 of the restructuring have been completed, the vast majority by privately-owned commercial banks, and the remainder are in the process of being restructured.

2.7 Incentive Package for Merger and Acquisition

The Government implemented measures to support the merger and acquisition of financial institutions for their long-term stability by consolidating their financial position, expanding their coverage of business activities and having them prepared for competition, both local and international, in light of greater financial liberalization. The Notification of the MOF dated December 28, 1998 was issued to allow the establishment of restricted-licensed bank through merger or acquisition of at least 5 entities of finance companies, finance and securities companies, and credit foncier companies with good track records and stable financial standing. Moreover, the merger and acquisition, or transfer of assets, wholly or partially, from merging entities, including capital injection of strategic partners, must yield the minimum capital after provisioning of 10,000 million Baht and capital-to-risk asset ratio of 15% from the date of operation, the ratio of which must be maintained for two years.

With the exception of taking demand deposits drawn on check, restricted-licensed banks may gradually operate normal commercial banking services in the following orders:

- Taking fixed deposit—with immediate effect.
- Taking savings deposit—with immediate effect. For those with branches, efficient on-line system between head office and branches must be in place and subject to the approval of the BOT before the commencement of this service.
- Opening no more than 5 branches initially, while request for more branches can be made to the BOT.
- Undertaking foreign exchange transaction subject to the BOT's approval when their risk management system and personnel are readily in place.
- For those in operation for at least 5 years with satisfactory performance, request for taking demand deposits drawn on check, providing overdraft facility and upgrading to full-licensed bank can be made to the BOT.

2.8 Fit and Proper Criteria for Management

The BOT recognizes that qualified senior management is critical to the successful operation of a financial institution. Management is not only required to have banking expertise but it must also possess professional integrity, honesty, and competence.

The Commercial Banking Act B.E. 2522 (1979) prohibits those dismissed from government agencies on charge of fraud and bankrupted persons, etc., from being appointed as a director, manager, deputy manager, assistant manager, or advisor of any bank.

These requirements were inadequate and did not place enough emphasis on banking experience and professional integrity. Moreover, it did not prohibit those who have a record of fraud, irresponsibility, negligence or disreputable business practices behavior from taking office. Additional guidelines were issued on November 28, 1997, requiring top executives of restricted-licensed bank to have at least 5 years experience in high-level positions and in the management and administration of well run financial institutions. Furthermore, they must be honest persons, with no bankruptcy or imprisonment records, and a good administrator with commendable work record and ethical business background.
On September 17, 1999, a further notification of the BOT was issued to prohibit board members or commercial bank executives from serving as a board member in more than 3 other companies. Under this provision, board members and commercial bank executives will be able to fully devote their time, knowledge, and skills to the financial institution.

With respect to finance companies and credit foncier companies, the Act on the Undertaking of Finance Business, Securities Business and Credit foncier Business B.E. 2522 (1979) not only requires BOT approval for the appointment of top executives appointment but also entitles the BOT to specify qualifications for executive positions of finance and credit foncier companies. Currently, the notification of the BOT, dated November 6, 1995, requires that senior management officials be persons who have an appropriate academic background, work experience, and skill appropriate for the positions. Furthermore, the individual must be able to devote their full time and attention to the responsibility of the positions, and have prior experience in a similar position. It is also required that he/she has never been dismissed by the BOT or the SEC from any executive posts in financial institutions or have had any record of fraud or dishonesty in the past.

2.9 The Establishment of Credit Bureau

The benefits of the credit bureau can be briefly summarized as follows: financial institutions can have access to more consolidated information on the clients in order to evaluate, analyze, and revise credit risk profile. This will greatly reduce unforeseen NPLs and speed up debt restructuring. Customers with good credit standing and small & medium enterprises (SMEs) will greatly benefit from quick credit granting.

The establishment of a credit bureau was included in the 5-year Financial System Master Plan (March 1, 1995 - February 29, 2000) jointly drafted by the MOF, the BOT and the SEC.
A Bill on the Undertaking of Credit Information Business was drafted in the wake of the financial crisis in 1997 in which the banking sector suffered from massive NPLs.

Currently, two private credit bureaus are established under the Civil and Commercial Code.

### 2.9.1 Central Credit Information Company Limited (CCIC)

CCIC was established by the Thai Bankers' Association with the support of the BOT. The company has initial capital of 26 million Baht, contributed by the 13 locally-incorporated banks. CCIC started its operation in January 2000 providing credit-related information on business and individual consumers. On December 5, 2000, the company successfully raised its capital and completed a joint venture deal with two new foreign partners: Trans Union International Inc., a major consumer credit provider from the US, and Business Online Co., Ltd., a joint venture between ANEW Corporation and Dun & Bradstreet.

### 2.9.2 Thai Credit Bureau Company Limited

As a joint venture of Government Housing Bank and Processing Center Co., Ltd., it commenced operation in September 1999 focusing on consumer credit information.

### 2.10 Good Governance

Good corporate governance has become a major focus in Thailand, particularly within the realm of the Thai financial sector. Recognizing this global trend, the BOT has put forth various measures relating to the practice of good governance, including:

- **Transparency:** Financial institutions are required to disclose information on NPLs, lending to related parties and violation against the BOT's rules and regulations, including the total amount of fine paid for such violations.
- Sound lending practices:

(1) Bank's lending to related companies is limited to no more than 50\% of shareholders' equity or 25\% of total liabilities of the company or 5\% of tier-1 capital of the bank, whichever is lower.

(2) Bank's lending to related companies with cross-directorship is restricted. In cases where bank directors or senior executives also hold the directorship position and shares exceeding 1\% of paid-up capital of the related companies, lending to these companies is prohibited.

- Directors' involvement: Bank directors or senior executives are permitted to be board of directors in no more than 3 companies other than the bank.

The BOT has established a working group, with participation from the industry, to explore the structure of locally-incorporated banks and practices used by the international community in order to recommend the most suitable guidelines for the Thai financial sector on the practice of good governance. Initially, the guidelines will focus on roles and composition of the board of directors and various committees, with an emphasis on the independent directors as the key component of the board and committees. Independent directors can provide an objective view of the business policy setting and monitoring of the institution.
3. PERFORMANCE OF FINANCIAL INSTITUTIONS

3.1 Balance Sheet Composition and Loan Portfolio

3.1.1 Balance Sheet Composition

![Assets and Liabilities Diagram]

**Assets**

- Cash and Deposits at Financial Institutions
- Investment in Securities (including R/P)
- Credits (less Allowance for Possible Loan Loss)
- Other Assets
- Assets Growth

**Liabilities and Equities**

- Deposits
- Borrowings (including R/P)
- Other Liabilities
- Shareholder's Equity/Equity Investment of H/O and Other Branches
- Liabilities Growth
- Equity Growth

Supervision Report 2000
As of year-end 2000, the 77 financial institutions operating in Thailand—including locally-incorporated banks, branches of foreign banks, IBFs, finance companies, and credit foncier companies had combined assets of 6,589 billion Baht. Although the combined asset represents a growth of only 1%, this is an improvement from the decline that was experienced in 1997 and 1998. On the other hand, funds mobilized by the financial institution system, in the form of deposits and long-term borrowings grew, while the uses of funds have shifted increasingly towards investment in securities as well as in the interbank market, as against credit extension which continued to decline.

Despite the continued decline in deposit rates, financial institutions’ deposits rose by a significant 227 billion Baht, most of which represents the flow of the public deposits back into financial institutions following Y2K concerns at the end of year 1999. The 3-month and 6-month deposits experienced the largest decline in interest rates, as compared to savings rate and the rates on deposits of over one year maturity. As a result, the structure of deposits witnessed a shift out of the 3-month and 6-month deposits into saving deposits, on the one hand, and fixed deposits with maturity of one year and over, on the other hand.

**Financial Institutions in 2000**

<table>
<thead>
<tr>
<th></th>
<th>Locally-incorporated Banks</th>
<th>Branches of Foreign Banks</th>
<th>Stand-alone IBFs</th>
<th>Finance Cos.</th>
<th>Credit Foncier Cos.</th>
<th>Total Change from 1999</th>
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<tr>
<td><strong>Assets</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Cash and deposits at financial institutions</td>
<td>685.2</td>
<td>76.8</td>
<td>0.8</td>
<td>4.4</td>
<td>0.4</td>
<td>767.6</td>
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<td>Investments in securities (including R/P)</td>
<td>727.1</td>
<td>125.4</td>
<td>0.0</td>
<td>96.0</td>
<td>0.6</td>
<td>949.1</td>
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<tr>
<td>Credits (net)</td>
<td>5,785.9</td>
<td>539.0</td>
<td>71.3</td>
<td>138.7</td>
<td>3.4</td>
<td>6,592.2</td>
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<tr>
<td>Other assets</td>
<td>297.3</td>
<td>24.1</td>
<td>0.4</td>
<td>15.2</td>
<td>1.1</td>
<td>336.0</td>
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<tr>
<td><strong>Liabilities</strong></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Borrowings (including R/P)</td>
<td>398.1</td>
<td>117.5</td>
<td>0.7</td>
<td>14.9</td>
<td>4.2</td>
<td>555.4</td>
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<tr>
<td>Other liabilities</td>
<td>123.1</td>
<td>53.4</td>
<td>1.1</td>
<td>4.5</td>
<td>0.1</td>
<td>182.2</td>
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<tr>
<td><strong>Equities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>251.8</td>
<td>337.2</td>
<td>70.7</td>
<td>50.9</td>
<td>1.2</td>
<td>691.8</td>
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<td><strong>No. of Banks</strong></td>
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<td></td>
<td>15</td>
<td>21</td>
<td>12</td>
<td>21</td>
<td>10</td>
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</table>
In the aftermath of the crisis and the floating of the Baht, financial institutions have reduced their exposure to foreign exchange risk by restructuring their funding, shifting towards long-term Baht funding. The locally-incorporated commercial banks in particular, have resorted increasingly towards the issuance of debt instruments. As a result, the share of the long-term Baht borrowing out of the total borrowings rose to 45.1% as of year-end 2000.
3.1.2 Loan Portfolio

1) Non-Performing Loans (NPLs)

Non-performing loans (NPLs) of the financial institutions--comprising locally-incorporated banks, branches of foreign banks, and finance companies--peaked at 2,729 billion Baht in 1999, equivalent to around 47.7% of total credits. By end-December 2000, however, the situation improved significantly, with NPLs declining to 858 billion Baht, or 17.9% of total credit outstanding. This was the result of progress in debt restructuring, the write-off of loans for which full provisioning of 100% have been made, as well as the transfer of NPLs to AMCs.

Non-performing loan situations in each category of financial institutions are as follows:

1) Locally-incorporated banks and majority-owned by Thais (Bangkok Bank PCL, Thai Farmers Bank PCL, Bank of Ayudhya PCL and The Thai Military Bank PCL): NPL outstanding amounted to 455.3 billion Baht or 18.8% of total credits.
(2) Locally-incorporated banks and majority-owned by foreigners (DBS Thai Danu Bank PCL, Standard Chartered Nakornthon Bank PCL, Bank of Asia PCL and UOB Radanasin Bank PCL) : NPL outstanding amounted to 32 billion Baht, or 11.2% of total credits.

(3) State-owned banks: NPLs amounted to 308 billion Baht, or 21.6% of total credits.

(4) Branches of foreign banks: NPL outstanding amounted to 38 billion Baht, or 6.6% of total credits.

(5) Finance companies: NPLs amounted to 35 billion Baht, or 24.6% of the credit outstanding.

When classified by economic sector, the sector with the largest volume of NPL outstanding is the manufacturing sector: 206 billion Baht (24.0% of total NPLs), the retail and wholesale trade sector accounted for 135 billion Baht of NPLs (15.7% of total NPLs), and NPLs arising from personal consumption loans amounted to 130 billion Baht (15.1% of total NPLs).
The strategy to bring about further progress in the resolution of NPLs emphasizes an increased role of the following:

(1) The process of in-court arbitrations for the NPL debtors.

(2) Initiatives to support the debt restructuring process of small and medium enterprises (SME), whose businesses remain viable and have completed signing of a debt restructuring agreement. The support is to enable them to access new credit from commercial banks by providing partial credit guarantee from the Small Industry Finance Corporation, in order to mitigate the risk of the commercial banks.

(3) The expanded role of CDRAC to cover NPLs which have been transferred to AMCs, in order to help accelerate revival of the debtors whose businesses remained viable.

2) Sectoral Concentrations

Credit extended by financial institutions declined following the crisis. In term of sectoral allocation, most of the credit outstanding remained concentrated in 5 major sectors, namely manufacturing, trade and commerce, real estate, banking and finance, and personal consumption credit.
Commercial Banks Credit Classified by Economic Sector

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</thead>
<tbody>
<tr>
<td>1. Agriculture &amp; Forestry</td>
<td>162.8</td>
<td>160.6</td>
<td>146.1</td>
<td>134.8</td>
<td>120.5</td>
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<tr>
<td>2. Mining &amp; Quarrying</td>
<td>20.6</td>
<td>35.7</td>
<td>32.2</td>
<td>29.4</td>
<td>21.9</td>
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<tr>
<td>3. Manufacturing</td>
<td>1,188.7</td>
<td>1,773.1</td>
<td>1,521.0</td>
<td>1,495.7</td>
<td>1,279.6</td>
</tr>
<tr>
<td>4. Construction</td>
<td>228.4</td>
<td>267.6</td>
<td>242.7</td>
<td>220.0</td>
<td>160.9</td>
</tr>
<tr>
<td>5. Retail and Wholesale Trade</td>
<td>1,191.2</td>
<td>1,411.5</td>
<td>1,237.1</td>
<td>1,128.0</td>
<td>919.2</td>
</tr>
<tr>
<td>6. Banking &amp; Finance</td>
<td>280.9</td>
<td>432.7</td>
<td>243.0</td>
<td>384.0</td>
<td>662.9</td>
</tr>
<tr>
<td>7. Real Estate</td>
<td>418.3</td>
<td>484.4</td>
<td>504.3</td>
<td>513.8</td>
<td>339.5</td>
</tr>
<tr>
<td>8. Utilities</td>
<td>133.2</td>
<td>188.0</td>
<td>180.7</td>
<td>194.9</td>
<td>207.0</td>
</tr>
<tr>
<td>9. Services</td>
<td>372.5</td>
<td>453.2</td>
<td>415.0</td>
<td>382.3</td>
<td>311.5</td>
</tr>
<tr>
<td>10. Personal Consumption</td>
<td>603.3</td>
<td>645.9</td>
<td>595.0</td>
<td>567.2</td>
<td>511.6</td>
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<tr>
<td>Total</td>
<td>4,599.9</td>
<td>5,852.7</td>
<td>5,117.1</td>
<td>5,050.1</td>
<td>4,534.6</td>
</tr>
</tbody>
</table>

Source: Bank of Thailand

**Commercial banks**: Over half of the credits extended by commercial banks are in the manufacturing, retail and wholesale trade, and real estate sectors, with credit outstanding in almost all sectors recording a decline since the crisis. The decline in credit reflects not only an economic contraction, but also a result of the loan write-off and a significant transfer of NPLs to AMCs during 1999 and 2000, resulting in a contraction of credit by 1.3% and 10.2%, respectively, in those years. However, if these written-off loans and NPLs that were transferred to AMCs were added back to the outstanding credit figures, commercial bank credit would show a growth rate of 3.2% in 1999, and a decline of 6.5% in 2000.
Finance Companies and Credit Foncier Companies Credit  
Classified by Economic Sector

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</tr>
</thead>
<tbody>
<tr>
<td>1. Agri., Mining &amp; Quarrying</td>
<td>15.1</td>
<td>5.8</td>
<td>5.4</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>2. Manufacturing</td>
<td>228.7</td>
<td>111.8</td>
<td>98.8</td>
<td>35.7</td>
<td>24.5</td>
</tr>
<tr>
<td>3. Retail and Wholesale Trade</td>
<td>121.3</td>
<td>42.5</td>
<td>36.9</td>
<td>13.0</td>
<td>8.8</td>
</tr>
<tr>
<td>4. Import</td>
<td>26.6</td>
<td>7.7</td>
<td>7.3</td>
<td>3.3</td>
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</tr>
<tr>
<td>5. Export</td>
<td>12.4</td>
<td>6.3</td>
<td>5.2</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>6. Banking &amp; Finance</td>
<td>146.7</td>
<td>58.7</td>
<td>49.9</td>
<td>16.0</td>
<td>13.4</td>
</tr>
<tr>
<td>7. Construction</td>
<td>54.5</td>
<td>15.5</td>
<td>14.3</td>
<td>4.2</td>
<td>2.7</td>
</tr>
<tr>
<td>8. Real Estate</td>
<td>367.1</td>
<td>126.2</td>
<td>119.7</td>
<td>42.5</td>
<td>29.7</td>
</tr>
<tr>
<td>9. Utilities &amp; Services</td>
<td>123.4</td>
<td>54.2</td>
<td>53.3</td>
<td>25.2</td>
<td>20.8</td>
</tr>
<tr>
<td>10. Personal Consumption</td>
<td>387.7</td>
<td>106.2</td>
<td>78.6</td>
<td>45.5</td>
<td>43.0</td>
</tr>
<tr>
<td>11. Hire Purchase</td>
<td>11.3</td>
<td>3.2</td>
<td>1.4</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,494.8</td>
<td>538.1</td>
<td>470.8</td>
<td>190.3</td>
<td>150.7</td>
</tr>
</tbody>
</table>

Source: Bank of Thailand

Finance companies and Credit foncier companies: Almost half of the combined credit outstanding remained concentrated in personal consumption loans and real estate loans. Credits extended contracted significantly since the crisis, partly as a result of the closure of 56 finance companies and 2 credit foncier companies.

3) Foreign Currency Loan

![Bar chart showing Foreign Currency Loan: Total Domestic Loan]
The opening up of the Thai financial system with the establishment of the Bangkok International Banking Facilities (BIBFs) in 1993, in order to facilitate the economic development of the country as well as promote the country into a regional financial center, resulted in a large inflow of low cost foreign capital. This was subsequently employed in unproductive investment. At the onset of the economic and financial crisis in 1997, foreign currency loans constituted around 30% of total domestic credits, the major part of which having a short-term maturity. When the crisis erupted, a substantial part of these were recalled by creditors. In addition, a number of borrowers repaid their loans early in order to reduce their foreign currency exposure and refinancing by domestic borrowings in Baht. As a result, foreign currency credit outstanding has shown a continued decline, and by the end of 2000 constituted around 12.7% of total credits.

The credit extended by International Banking Facilities (IBFs), which include both the BIBFs and Provincial International Banking Facilities (PIBFs), accounted for over 75% of total foreign currency credits. IBF credit which peaked at 2.1 trillion Baht in January 1998, subsequently declined to only one-fifth or around 431.1 billion Baht as of end-December 2000. More than half of the credit outstanding was allocated to manufacturing sector, and the rest were credits extended to utilities and services sector and to banking and finance sector.
3.2 Capital Funds

<table>
<thead>
<tr>
<th>Financial Institutions</th>
<th>Capital Fund (Billions Baht)</th>
<th>BIS Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier-1</td>
<td>Tier-2</td>
</tr>
<tr>
<td>Locally-incorporated Banks</td>
<td>265.6</td>
<td>135.9</td>
</tr>
<tr>
<td>- Majority-owned by Thais</td>
<td>178.6</td>
<td>115.9</td>
</tr>
<tr>
<td>- Majority-owned by Foreigners</td>
<td>26.8</td>
<td>6.1</td>
</tr>
<tr>
<td>State-owned</td>
<td>60.2</td>
<td>13.9</td>
</tr>
<tr>
<td>Branches of Foreign Banks</td>
<td>64.2</td>
<td>-</td>
</tr>
<tr>
<td>Total Commercial Banks</td>
<td>329.8</td>
<td>135.9</td>
</tr>
<tr>
<td>Finance Cos.</td>
<td>46.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Credit Foncier Cos.</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>376.8</strong></td>
<td><strong>139.7</strong></td>
</tr>
</tbody>
</table>

3.2.1 Financial Institutions Capital Structure

Total capital of the financial institutions amounted to 516.5 billion Baht as of the end of year 2000, of this, 90% was held by commercial banks. The financial institutions were able to meet the provisioning requirement, and in fact, as of year-end 2000, required provision of the financial institution system totaled 390.7 billion Baht, while actual provisioning amounted to 433.7 billion Baht, or 111% of required provisioning.
The capital to risk asset ratio of locally-incorporated banks averaged 11.4%, above the BOT’s minimum 8.5% requirement, tier-1 capital equals 7.6% well above the minimum of 4.25% specified by the BOT. Tier-2 capital represents 3.9% of risk weighted assets. For the finance companies and the credit foncier companies, the capital to risk asset ratios averaged at 25.5% and 21.5%, respectively, significantly above the minimum ratio of 8%.

In the latter half of 2000, the BOT permitted financial institutions to include in tier-2 capital the funds raised through the issuance of hybrid debt instruments and long-term subordinated debt. To be eligible for inclusion in tier-2 capital, hybrid debt instruments and subordinated debt must have a minimum maturity of 10 years and 5 years, respectively. For both instruments, financial institutions are required to annually amortize 20% of the capital during the 5 years preceding the maturity. For these instruments, early redemptions are not permitted without prior permission from the BOT.

3.2.2 Capital Increase

During 1998 to 2000, the locally-incorporated banks and finance companies increased capital in an amount of 958.9 billion Baht, comprising 892.1 billion Baht of tier-1 capital, and 66.8 billion Baht of tier-2 capital. Only in year 2000, the capital increase amounted to 56.5 billion Baht, comprising equity issuance of 48.1 billion Baht, and the issuance of debt instruments amounting to 8.4 billion Baht.
3.3 Earnings

### Financial Institutions Performance for the Year Ended 2000

<table>
<thead>
<tr>
<th>Items</th>
<th>Locally-incorporated Banks</th>
<th>Foreign Banks</th>
<th>Total Commercial Banks</th>
<th>Finance/CFs</th>
<th>Total Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Majority-owned by Thais</td>
<td>Majority-owned by Foreigners</td>
<td>State-owned</td>
<td>Branches</td>
<td>Stand-alone IBF</td>
</tr>
<tr>
<td>Spread</td>
<td>61.1</td>
<td>5.7</td>
<td>9.4</td>
<td>76.1</td>
<td>22.7</td>
</tr>
<tr>
<td>Non-interest Incomes</td>
<td>38.8</td>
<td>3.4</td>
<td>9.1</td>
<td>51.4</td>
<td>18.9</td>
</tr>
<tr>
<td>Expenses</td>
<td>79.5</td>
<td>11.0</td>
<td>55.6</td>
<td>124.0</td>
<td>24.4</td>
</tr>
<tr>
<td>Operating Profit (Loss)</td>
<td>20.6</td>
<td>-1.9</td>
<td>-15.1</td>
<td>3.5</td>
<td>17.2</td>
</tr>
<tr>
<td>Allowance for Doubtful/Bad Debts</td>
<td>70.9</td>
<td>18.3</td>
<td>50.2</td>
<td>119.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Net Profit (Loss)</td>
<td>-51.1</td>
<td>-20.3</td>
<td>60.01</td>
<td>-11.4</td>
<td>11.1</td>
</tr>
</tbody>
</table>

% to Total Assets:

<table>
<thead>
<tr>
<th>Items</th>
<th>Locally-incorporated Banks</th>
<th>Foreign Banks</th>
<th>Total Commercial Banks</th>
<th>Finance/CFs</th>
<th>Total Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spread</td>
<td>1.70</td>
<td>0.46</td>
<td>1.26</td>
<td>2.61</td>
<td>2.40</td>
</tr>
<tr>
<td>ROA</td>
<td>-1.42</td>
<td>-4.82</td>
<td>2.95</td>
<td>-0.19</td>
<td>1.28</td>
</tr>
<tr>
<td>Yield on Loan</td>
<td>7.66</td>
<td>6.40</td>
<td>4.44</td>
<td>6.45</td>
<td>8.93</td>
</tr>
<tr>
<td>Yield on Deposit</td>
<td>4.97</td>
<td>5.92</td>
<td>3.65</td>
<td>3.95</td>
<td>11.27</td>
</tr>
</tbody>
</table>

1) Krung Thai Bank reversed its provision for loan loss amounting 105.2 Billion Baht.

### 3.3.1 The Structure of Revenue and Expense

Non-interest income in financial institutions has trended upward since 1996, rising from 8.1% to 18.1% of total revenue by the end of year 2000. The trend partly reflects the strategy to cope with low yielding loan portfolios saddled with high levels of NPLs. Most of the non-interest income comprised fee-base income from fund transfer, ATM cards, L/C, as well as capital gains from the sale of assets.
On the expense side, traditionally the largest item is interest expense followed by operating expenses, however with the crisis and the increase in provisioning expenses, provision for loan losses and doubtful debt rose significantly to 40.9% of total expenses in 1999, partly reflecting the acceleration in provisioning in order to meet the regulation mandating full provisioning by the end of year 2000. In addition, expenses during this period were affected by expenses for severance pay for staff in early retirement program as well as increased expenses on product development.
3.3.2 Net Profit (Loss)

The financial institution system recorded a loss of 434.7 billion Baht in 1998, and has since shown improvement, with a smaller loss of only 4.5 billion Baht in 2000. Locally-incorporated banks recorded the most significant decline in losses due to reductions in provisions, while the Government assumed some losses of intervened banks when their NPLs were transferred to the AMC, allowing previously made provisions to be reversed and included as part of income.

3.3.3 Spread Management

During the past 4–5 years, interest income of financial institutions was significantly impacted by the high volume of NPLs. In response, financial institutions lowered the interest rates paid on deposits, which then led to a reduction on loan rates. In year 2000, the effective spread of locally-incorporated banks was at a historical low of 1.26% of assets, reflecting the high level of NPL at 19.3% of total credit outstanding. On the other hand, effective spread of branches of foreign banks was much higher, reflecting the fact that their client base consists of a large percentage of large multinational corporations that were not greatly affected by the economic decline in Thailand as compared to large Thai
corporations and SMEs that are clients of locally-incorporated banks. For the finance companies and the credit foncier companies, their effective spread benefited from the diversified hire-purchase portfolios, which comprise a large number of small retail customers, as such allowing them a better risk diversification as compared to the portfolios of the locally-incorporated banks majority owned by Thais.

**Interest rate of 3-month deposit and MLR represent rates of 5 largest locally-incorporated banks.**

**Spread represents all locally-incorporated banks.**
3.3.4 Return on Assets (ROA)

Locally-incorporated banks recorded a historically low ROA of -6.1% in 1998. This improved in subsequent years, reaching -0.2% at the end of year 2000. This, when combined with the higher ROA recorded by the branches of foreign banks, resulted in the average ROA for the banking system of -0.03% at year-end 2000. The future trend for the ROA of the Thai financial institution system should show an improvement as provisioning costs should decline, allowing net operating income to increase.
3.4 Liquidity

During the crisis in 1997, the financial institution system experienced deposit flight from the weaker financial institutions, which had lost the confidence of the public. The deposits were placed in the stronger financial institutions, particularly the larger commercial banks. The financial institutions perceived as being weak continued to lose deposit despite their increasing deposit rates. Eventually these institutions were forced to resort to liquidity support from the FIDF, while the larger commercial banks that experienced excess liquidity shifted their funds towards investment in foreign assets as well as investment in the R/P market.

Confidence in the financial system improved with the reversed flow of funds into private financial institutions as well as those intervened by the authorities following the implementation of the August 14, 1998 package which sought to strengthen capital base of financial institutions. In 1998 excess liquidity resulted due to a virtual cessation in lending caused by, first, a shift to very conservative lending standards and second, a reduced demand for credit from the corporate sector was weak in line with the economic contraction. Liquidity in the financial system experienced temporary tightening toward the end of 1999 as a result of the Y2K concerns, however liquidity returned to the system subsequently.
Among the intervened financial institutions, liquidity management mostly took the form of repayments of borrowings from the FIDF, subsequently as situation returned to normal their liquidity management strategy became in line with those of the other financial institutions. Specifically, excess liquidity was turned into foreign assets during 1999 to 2000, owing to a higher rate of return as compared to investment in the R/P market or in domestic securities.

### Sources & Uses of Funds (Main Items)

#### Sources of Funds

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits</td>
<td>+278.3</td>
<td>+311.5</td>
<td>-2.6</td>
<td>+237.8</td>
</tr>
<tr>
<td>Borrowings 1]</td>
<td>+536.5</td>
<td>-507.3</td>
<td>-58.7</td>
<td>+18.8</td>
</tr>
</tbody>
</table>

#### Uses of Funds

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td>+828.5</td>
<td>-451.8</td>
<td>-147.4</td>
<td>-505.1</td>
</tr>
<tr>
<td>Interbank Transactions 2]</td>
<td>+234.7</td>
<td>+113.1</td>
<td>+129.5</td>
<td>+138.8</td>
</tr>
<tr>
<td>Securities (net)</td>
<td>-50.1</td>
<td>+121.4</td>
<td>+167.0</td>
<td>+38.6</td>
</tr>
<tr>
<td>R/P</td>
<td>+141.1</td>
<td>+150.9</td>
<td>-223.9</td>
<td>+66.7</td>
</tr>
</tbody>
</table>

1] 90% of which is long-term borrowings (> 1 year)  
2] 80% of which is deposits in foreign countries

### Loan-to-Deposit Ratio of Locally-incorporated Banks*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L/D (NON-IBF)</td>
<td>109.2</td>
<td>108.7</td>
<td>95.0</td>
<td>99.1</td>
<td>84.7</td>
</tr>
<tr>
<td>L/D</td>
<td>118.5</td>
<td>121.4</td>
<td>99.7</td>
<td>101.4</td>
<td>86.1</td>
</tr>
</tbody>
</table>

*Credit outstanding after write-off and transfer to AMC

### 3.5 Market Risk

Market risk is the degree to which changes in interest rates, foreign exchange rate fluctuations, commodity prices, or equity prices can adversely affect a financial institution's earnings or economic capital.
3.5.1 Interest Rate Risk

A gap analysis measuring the major categories of interest bearing assets versus interest bearing liabilities in banks and finance companies at year-end 2000 indicates that in all time horizons up to 12 months, financial institutions were liability sensitive. The consequence of this position is that any increase in interest rates would cause earnings, and as a result, capital to decline. Over 12 months, however, the volume of interest bearing assets that would have matured exceeds liabilities by a ratio of 1.17. Thus, any sustained increase in interest rates would ultimately benefit earnings.

Comparing year-end 2000 results to year-end 1999, the interest rate risk positions are similar in that both years are liability sensitive up to the 12-month time horizon and asset sensitive beyond that. The magnitude of interest rate sensitivity, however, differs markedly from 1999 to 2000. In 1999 financial institutions were far more liability sensitive in the 3- and 6-month time horizons than in 2000. At the one-year point both years showed continued liability sensitivity at 0.7022 and 0.8164 for year-end 2000 and 1999 respectively.

### Interest Rate Risk

#### Year-end 2000

<table>
<thead>
<tr>
<th></th>
<th>0-3 Months</th>
<th>0-6 Months</th>
<th>0-12 Months</th>
<th>Over 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>697,945</td>
<td>697,945</td>
<td>697,945</td>
<td>697,945</td>
</tr>
<tr>
<td>Loans</td>
<td>2,126,127</td>
<td>2,126,127</td>
<td>2,287,625</td>
<td>5,006,332</td>
</tr>
<tr>
<td>Securities</td>
<td>131,463</td>
<td>131,463</td>
<td>131,463</td>
<td>790,877</td>
</tr>
<tr>
<td>Repurchase Agreements</td>
<td>157,648</td>
<td>157,648</td>
<td>157,648</td>
<td>157,648</td>
</tr>
<tr>
<td><strong>Total Interest Bearing Assets</strong></td>
<td>3,113,183</td>
<td>3,113,183</td>
<td>3,274,681</td>
<td>6,652,802</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings Deposits</td>
<td>1,438,387</td>
<td>1,438,387</td>
<td>1,438,387</td>
<td>1,438,387</td>
</tr>
<tr>
<td>Time Deposits</td>
<td>2,245,152</td>
<td>2,576,765</td>
<td>3,071,349</td>
<td>3,668,475</td>
</tr>
<tr>
<td>Borrowings</td>
<td>117,343</td>
<td>124,841</td>
<td>155,013</td>
<td>515,192</td>
</tr>
<tr>
<td>Repurchase Agreements</td>
<td>18,420</td>
<td>18,420</td>
<td>18,420</td>
<td>18,420</td>
</tr>
<tr>
<td><strong>Total Interest Bearing Liabilities</strong></td>
<td>3,819,302</td>
<td>4,158,413</td>
<td>4,663,169</td>
<td>5,640,474</td>
</tr>
<tr>
<td><strong>Assets/Liabilities</strong></td>
<td>0.8151</td>
<td>0.7486</td>
<td>0.7022</td>
<td>1.1795</td>
</tr>
</tbody>
</table>
Interest Rate Risk
Year-end 1999

(Million Baht)

<table>
<thead>
<tr>
<th></th>
<th>0-3 Months</th>
<th>0-6 Months</th>
<th>0-12 Months</th>
<th>Over 12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>550,664</td>
<td>550,664</td>
<td>550,664</td>
<td>550,664</td>
</tr>
<tr>
<td>Loans</td>
<td>1,099,319</td>
<td>1,169,554</td>
<td>2,831,020</td>
<td>5,447,386</td>
</tr>
<tr>
<td>Securities</td>
<td>117,804</td>
<td>117,804</td>
<td>117,804</td>
<td>704,202</td>
</tr>
<tr>
<td>Total Interest Bearing Assets</td>
<td>1,867,575</td>
<td>1,937,810</td>
<td>3,599,276</td>
<td>6,802,040</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings Deposits</td>
<td>1,263,826</td>
<td>1,263,826</td>
<td>1,263,826</td>
<td>1,263,826</td>
</tr>
<tr>
<td>Time Deposits</td>
<td>2,405,675</td>
<td>2,922,240</td>
<td>2,939,685</td>
<td>3,632,084</td>
</tr>
<tr>
<td>Borrowings</td>
<td>118,078</td>
<td>134,847</td>
<td>159,682</td>
<td>567,906</td>
</tr>
<tr>
<td>Repurchase Agreements</td>
<td>45,515</td>
<td>45,515</td>
<td>45,515</td>
<td>45,515</td>
</tr>
<tr>
<td>Total Interest Bearing Liabilities</td>
<td>3,833,094</td>
<td>4,366,428</td>
<td>4,408,708</td>
<td>5,509,331</td>
</tr>
<tr>
<td>Assets/Liabilities</td>
<td>0.4872</td>
<td>0.4438</td>
<td>0.8164</td>
<td>1.2346</td>
</tr>
</tbody>
</table>

3.5.2 Equity Risk

Equity risk in financial institutions is kept relatively low by legal restrictions which prevent a financial institution from owning equity in another company amounting to more than 10% of the company capital. In aggregate, equity ownership positions may not exceed 20% of the financial institution’s capital. Exceptions to this rule are permitted with BOT approval and this is generally limited to cases where the entity is a financial or financial-related company.

Because of the legal restrictions mentioned above, total equity positions--both traded and non-traded--as a percentage of total assets was only 1.83% both at year-end 2000 and 1999. Within the category of trading equity securities, financial institutions have recently suffered from a decline in the value of their investments. In 1999, the market value of traded equity positions represented 100.1% of the cost. By year-end 2000 this ratio declined to 47.8%. The book value of non-traded equity securities has remained relatively constant over the years.
3.5.3 **Foreign Exchange Risk**

Foreign exchange risk in financial institutions is limited by a net aggregate foreign exchange open position limit imposed by the BOT. The limitation for commercial banks applies to either oversold or overbought position and is the greater of 15% of tier-1 capital or 5 million USD. For finance companies the limitation is 25% of tier-1 capital for overbought positions and 20% for oversold.

Commercial banks, IBFs, and certain other financial institutions that conduct activities in foreign currencies (Asia Credit PCL, EXIM Bank of Thailand, The Industrial Finance Corporation of Thailand) have 21.41% of their combined assets in foreign currency denominated assets. This is only a slight increase from year-end 1999 when the figure was 20.37%.

Financial institutions, in aggregate, have increased their net positive foreign currency exposure position since 1999. The ratio of spot foreign currency denominated assets to spot foreign currency denominated liabilities was 1.66-to-1 at year-end 2000, up from 1.36-to-1 at year-end 1999. The largest category of assets is loans, representing almost 45% of all foreign currency denominated assets.
4. SUPERVISORY METHODS AND ISSUES

Since 1999, the BOT's supervision and examination of financial institutions has focused on risk management. This risk-focused supervision approach involves an on-going examination, analysis, and assessment of financial institutions' risk management system which includes strategic risk, credit risk, market risk, liquidity risk and operational risk. Before an on-site examination, BOT staff will gather necessary information about the financial institution, including information obtained from internal and external auditors. This will assist the examiners in identifying key issues and problems in order to better focus the scope of examination. As a result, the actual on-site examination can be conducted more efficiently and with less burden on the management and staff of the financial institution concerned.

Generally, each financial institution is subject to an on-site examination at least once a year. Financial institutions will be notified in advance of the specific objectives of the on-site examination.

In addition, the examination report forms have been improved. They are now more concise and focus on the various elements of risks. A financial institution's aggregate level of risks is identified by a rating which takes into account both the magnitude of risk and the quality of risk management. Five different types of risks are assessed (credit, liquidity, strategic, operational and market risk), with ratings from the lowest level: 1 to the highest level: 5 assigned to each. With respect to the risk assessment, risks will be rated into 5 levels: level 1, low; level 2, moderate to low; level 3, moderate; level 4, moderate to high; and level 5, high.
The thrust of the risk-based supervision is on the assessment of the risk management system of a financial institution. The financial institutions risk management system must be able to indicate, measure, follow-up and control risks arising from the business operations. Involvement of the board of directors and high-level management of financial institutions is required in the formulation of risk management policy and procedures.

4.1 Old and New Examination Approaches Compared

In the past, bank examiners would make an assessment of the financial and operational condition of a financial institution based upon a review of its capital adequacy, asset quality, management, earnings capability, liquidity condition, and susceptibility to changes in market prices (CAMELS). The new examination approach builds on this assessment process, by focusing on risk management, particularly strategic and operational risks.

In the past, bank examiners would tend to place emphasis on detailed transactions, accuracy of figures reported by financial institutions to the BOT, and their compliance with applicable laws and regulations. Under the new supervisory approach, however, the examiners would focus on the assessment of the management's ability to identify, measure, monitor, and control risks as well as on the institution's corporate governance. Examiners also need to assess the financial condition of financial institutions and their compliance with the internal control system.

In summary, the old approach of supervision and examination emphasized the assessment of financial institution present condition while the new approach looks more at the present and future financial condition as well as risk management systems.
4.2 Training and Development

The change to risk-focused supervision and examination techniques necessitates new training and development for staff of the Supervision Group. A Bank Examiner School was founded by the BOT in the middle of 1999 with an objective to increase the competency of the examiner particularly in the area of risk-focused examinations. The Bank Examiner School consists of 5 core courses that focus of supervision fundamentals and various specialty courses.

As part of the career development process, examiner will become "commissioned" upon successful completion of the five core training courses, comprehensive knowledge examination and acquisition of sufficient on-the-job experience. The commissioning process is supervised by a board consisting of external experts and the management of the BOT. It is expected that the first group of qualified examiners will be commissioned under such a process by the end of year 2001.

To broaden their practical experience and deepen their understanding of international best practice, bank examiners are regularly seconded to supervisory authorities abroad for development and practical training.
5.1 New Financial Institutions Act

The draft Financial Institutions Act is part of a package of financial sector legal reforms designed to strengthen Thailand's supervisory practices and procedures such that they are in line with international best practices. The primary purpose of new Act is to provide a more effective framework for safeguarding the country's financial stability, strengthening regulatory oversight, and protecting public interests. The Act will eliminate redundancies and discrepancies between different laws applicable to different types of financial institutions. Specifically, it will combine the Commercial Banking Act and the Act on the Undertaking of Finance Business, Securities Business and Credit Foncier Business, thereby creating a uniform standard of supervision amongst these institutions as well as specialized financial institutions. The draft Act has been passed by the House of Representatives and is now being reviewed by the new government.

The new Financial Institutions Act would give the BOT the sole responsibility for supervising financial institutions (as opposed to sharing it with the MOF under current laws) and will pave the way for universal banking in Thailand. It will also empower the BOT to supervise and monitor financial subsidiaries and financial conglomerates on a consolidated basis, and will specify steps for prompt corrective action and exit procedures for unviable financial institutions.

5.2 Improvement of Accounting Standards and Guidelines

Financial institutions in Thailand are required to prepare their financial statements in conformance with accounting standards issued by the Ministry of Commerce under the new Accounting
Act of B.E. 2543 (2000). Importantly, the Act imposes penalties on companies that do not comply with the prescribed standards. For companies listed on the Stock Exchange of Thailand, an additional penalty may be imposed by the Securities and Exchange Act.

Financial institutions must also comply with these accounting standards. In keeping with international best practice, the BOT can and has, in consultation with relevant professional bodies, prescribed more stringent accounting standards for financial institutions.

5.3 Supervision of Financial Conglomerates

The new Financial Institutions Act will enhance competition among domestic financial institutions by permitting them to conduct their business in groups or conglomerates of related companies. Close cooperation among different supervisory bodies is essential to ensure effective and consistent supervisory practices, which include, among other things, developing criteria for "fit and proper" executives, ensuring group's capital adequacy, assessing risk concentration, and monitoring of intra-group transactions and exposures. A working group, consisting of representatives from the MOF, the BOT, the Stock Exchange of Thailand, and the Ministry of Commerce, has been established to develop a framework to enable the development of, and ensure the effective supervision of financial conglomerates.

5.4 Deposit Insurance Agency (DIA)

The notion of establishing a Deposit Insurance Agency in Thailand, though initiated in 1979, never took shape until the financial crisis in 1997. It was in 1997 that the Cabinet approved a blanket guarantee for depositors and creditors of all financial institutions.
The blanket guarantee, while necessary under the circumstances, introduces moral hazard to depositors/creditors and financial institutions. The former becomes indifferent to the riskiness of financial institutions and interested only in high returns, while the latter becomes immune from market pressure to improve their performance. Mindful of such pitfall, the authority is considering the establishment of a Deposit Insurance Agency with the following key functions:

(1) The deposit insurance scheme shall be for small, unsophisticated depositors who account for over 90% of all depositors, the majority of whom are incapable of effectively assessing the degree of risk of financial institutions.

(2) The deposit insurance scheme will promote the stability and soundness of financial institutions by imposing a system that will effectively protect financial institutions from deposit runs by small depositors. On the other hand, large depositors and creditors will not be protected against losses resulting from the bank's failure.

(3) The Deposit Insurance Agency must act promptly to minimize the cost of repayment to insured depositors of failed financial institutions. The Deposit Insurance Agency will be responsible for identifying options with troubled financial institutions to limit its compensation to depositors.

The establishment of a Deposit Insurance Agency (DIA)

On December 1, 2000 the MOF appointed a committee to oversee the establishment of Deposit Insurance Agency and the drafting of Deposit Insurance Agency Act. It was also charged with the responsibility of promoting public understanding of deposit insurance. In parallel, the BOT and the FIDF are preparing the framework for the establishment and operation of the DIA.
The work is divided into 2 phases. The first phase focuses on 3 areas – (1) appropriate conditions and the timing to lift the Blanket Guarantee, (2) appropriate transitional arrangements (if needed) to accompany the lifting of the blanket guarantee and (3) key features of the limited deposit insurance scheme based on depositors' behavioral study. The preliminary study reveals that the prerequisites for the removal of the blanket guarantee are: (1) soundness of financial institutions; (2) effective regulation of financial institutions; (3) stable economic conditions; and (4) confidence of depositors in financial institutions. The second phase will focus on the organizational design and operating systems for the Deposit Insurance Agency. In addition, a manual for closing failed institutions will be drafted.

5.5 Compliance of BIS Core Principles

A lack of a strong supervisory framework based on the Basel Committee Core Principles for effective supervision (Core Principles) has often been blamed for exacerbating the economic crisis in Thailand.

A World Bank's study conducted from October 1998 through July 1999 evaluated the supervisory framework in Thailand against the Core Principles. The study found that preconditions for effective banking supervision in Thailand will require, among other things, legal reform, improvement in the accounting and auditing standards, the establishment of a Deposit Insurance Agency, and clear guidelines for resolving troubled financial institutions.

As part of the structural reform efforts to resuscitate the economy, the Government has amended 11 important business and financial laws and improved accounting and auditing standards in line with international best practices. The Accounting Act was enacted to ensure that companies produce reliable and transparent
financial statements. To bring the supervisory standards closer to that of Core Principles, the BOT has taken the following initiatives:

(1) Legal amendment: A new Financial Institutions Act was drafted (as discussed in section 5.1).

(2) Overhaul of financial data reporting system and analysis: A new Database Management Group was set up in the BOT to act as a single point of contact for receiving data from financial institutions. Together with the revised data reporting system, new techniques and instruments were introduced to improve the monitoring and analysis of financial institutions.

(3) Restructuring of the Supervision Group (as discussed in chapter 6): The Financial Institutions Policy Board (FIPB) was established to oversee regulatory policies, while the Financial Institutions Development Board will promote the standardization of supervisory practices. Members of FIPB are also drawn from qualified people outside the BOT, namely, the SEC, the Department of Insurance and the Thai Institute of Directors.

(4) Upgrading of regulatory and supervisory capacity: A Bank Examiner School was established to train bank examiners in supervisory procedures and processes (as discussed in chapter 6).

(5) Revision of regulatory guidelines: Regulatory guidelines were drafted in accordance with the new Financial Institutions Act and BIS supervisory standards. The guidelines focus on risk management, sound management, and transparent, timely and adequate information disclosure.

The BOT aims to review and update its regulatory guidelines for financial institutions consistent with the Core Principles in order to promote the safety and soundness of the financial system and ultimately the economy.
5.6 Strengthening Specialized Financial Institutions (SFIs)

Specialized Financial Institutions (SFIs) are under the supervision of the MOF. However, the Ministry has not imposed any prudential regulations on SFIs, as their operations aim primarily at implementing government policies. Nevertheless, in the wake of the 1997 economic crisis, with many SFIs suffering financial weakness and large amount of bad debts, the MOF began to review its supervisory policy with respect to SFIs. As a result, in 1998 the MOF requested that the BOT carry out on-site examination of eight SFIs, namely, The Government Savings Bank, the Government Housing Bank, the Bank for Agriculture and Agricultural Cooperatives, the Export-Import Bank of Thailand, The Industrial Finance Corporation of Thailand, The Small Industry Finance Corporation, the Secondary Mortgage Corporation, and the Asset Management Corporation. The move was aimed at assessing the financial strength of these SFIs.

In order to design an appropriate supervisory framework for SFIs, the BOT has conducted comparative studies of SFIs and commercial banks in Europe, the United States, and Australia. SFIs in these countries exhibit a wide variety of differences in their organization structure, management, and supervisory frameworks. SFIs in more advanced countries tend to be privately owned, either partially or totally. Government subsidies exist only for sectors that subscribe to program loans, which are state financed. Every financial institution, be it government or privately owned, is entitled to manage these loans and receive a management fee. Many countries still place an emphasis on subsidies via SFIs. Supervisory frameworks are mostly similar to those of commercial banks.

The recommended supervisory framework for SFIs in Thailand will draw heavily on the outcome of the above study which will be presented by the BOT to the MOF in 2001.
5.7 Financial Architecture Framework

5.7.1 Financial System Master Plan B.E. 2545-2555 (2002-2012)

A sound financial system is a critical pre-condition for sustainable economic development. The BOT has been continually engaged in building a firm foundation for the financial system in the future. A 10-year Master Plan is currently being drafted to serve as a common framework for policy making and strategic management by the various government agencies and private financial institutions. It aims to promote greater competition among commercial banks and other financial institutions, provide an environment conducive for financial innovation, and help raise the efficiency of domestic financial institutions so that they can compete with other financial institutions globally.

The Plan--expected to be completed by mid 2002--consists of two major components:

(1) Market Reform : This component will focus on policy measures to improve competitiveness and soundness of domestic financial institutions and to facilitate necessary adjustments in preparation of intensified competition from abroad. The measures will be based on market mechanisms that allow the number of financial institutions to fluctuate according to market demands. There will also be a thorough reexamination of the existing laws and regulations concerning the business boundaries of commercial banks, restricted-licensed banks, IBFs, branches of foreign banks, superfinance, finance, securities, and credit foncier companies.

The draft Plan will include a detailed analysis of the structure of financial institutions in Thailand, future trends of major financial products, a comparison of financial market development within the East Asia region, and the potential impact of other financial
service providers such as non-deposit taking companies, insurance businesses, and direct financing companies on the banking sector. The outcomes of these studies, together with responses from the market participants, will be used in arriving at the final recommendations on appropriate financial structure policies for Thailand.

(2) Supervisory Reform: This component of the Plan will concentrate on measures to improve the effectiveness of supervisory authorities, make necessary changes in supervisory practices consistent with the proposed market reform, supervision of financial conglomerates and non-deposit taking financial institutions, alternative supervisory arrangements such as supervision by products or by institutions, and measures to improve coordination among various supervisory agencies.

5.7.2 Internet Banking Policy

Given the phenomenal growth of internet usage globally, financial institutions in Thailand are preparing their systems to use the internet as a new delivery channel for their products. Even though internet banking in Thailand is still in an early stage, the BOT issued guidelines on the use of the internet network for commercial banking business on November 9, 2000. The essence of the guidelines are as follows:

(1) Commercial banks are permitted to use the internet network to deliver all financial services provided that they meet the BOT's requirement on system security, risk assessment, contingency plan, system technology and security development, staff training development, internal control, and measures against possible legal problems which take into consideration the rights and benefits of customers.
(2) A commercial bank's web site can provide hyperlink to other businesses, but it cannot advertise or engage in active selling on behalf of those businesses.

(3) To prevent possible disputes between the customers and other businesses, transactions with other corporate entities cannot be carried out on the commercial bank's web site.

(4) To foster competition, the BOT will not impose any restriction on internet-banking fees levied by the commercial banks on their customers and other businesses.

The next step for internet banking in Thailand is for the BOT to complete the draft of legislation governing internet related consumer protection and to develop a system to protect the integrity of electronic transactions. The BOT has assisted the National Electronics and Computer Technology Centre (NECTEC) in the drafting of such legislations, namely, electronic commerce law, electronic signature law, electronic fund transfer law, data protection law, computer crime law and universal access law. The first two laws are being reviewed by the Parliament, while the remainder are still being drafting. The BOT will continuously play a supportive role in promoting market innovation in electronic commerce and banking.
6. REORGANIZATION OF FINANCIAL INSTITUTIONS SUPERVISION GROUP

6.1 Overview of Reengineering Program

In 1999 the BOT initiated a Modernization Program (Program) the goal of which is to improve its ability to adapt to changing environments. This goal is being achieved by first identifying process and capability improvements and then implementing new structures that will result in enhanced efficiency and effectiveness in the BOT’s operations and activities.

Although the Program stretches across all of the organizational groups within the BOT, a key area of modernization is within the Financial Institutions Supervision Group.

6.2 Program Objectives

The Program initially focused on the development of a new strategic direction for the BOT that included a core purpose, vision, core values and strategic objectives. Among the strategic objectives is the BOT’s responsibility to ensure financial and monetary stability, conduct its operations in an efficient and effective manner, and maintain good communication with all relevant parties.

The objectives of the Program as it relates to the Financial Institutions Supervision Group are to enhance the efficiency, effectiveness, and timeliness of the supervision processes. As part of this, the Program developed and is now implementing supervision practices based on international best practices (e.g. those from the Basel Committee on Banking Supervision) to ensure the safety and soundness of financial institutions in Thailand, protect depositors, and maintain public confidence in the financial sector.
6.3 **Program Reform**

The Program started with a review and identification of the Financial Institutions Supervision Group's strategic direction. Using the BOT's core purpose, a new direction was developed. The key activities of this process included an identification of the current weaknesses, an analysis of the gaps between "as is" and "target" processes, design of new processes, development of implementation plans, pilot testing, and finally roll-out and conducting post-implementation reviews of the new supervisory policies, procedures and practices.

The new supervisory approach is risk focused and concentrates on five major types of risk: strategic risk, credit risk, market risk, liquidity risk and operational risk. This departure from transaction testing to risk-focused supervision will allow the BOT to channel its supervisory resources on the areas of a financial institution that have the greatest potential to cause financial or operational harm to the institution. The adoption of risk-focused supervision methodologies emphasizes examination preplanning to identify areas of potential concern and a review of the financial institution's risk management procedures and results. From this, a clear examination scope that allocates more time and resources to areas of greater risk and less to those of little concern, can be developed. The end result is a supervisory process that is more effective because it focuses on weaknesses in the institution and more efficient because it does not waste valuable time on areas that do not represent a supervisory concern.

Standardized on-site examination planning and management reporting processes were designed for the entire Financial Institutions Supervision Group to ensure consistency throughout the supervisory processes. The Planning and Development function was established under the new organization structure (see section 6.4) to manage
the newly designed planning and management reporting process as a centralized unit in the Financial Institutions Supervision Group, which efficiently allows for reallocation of resources during the year as needed.

An On-site Evaluation Form was introduced for management to evaluate staff performance immediately after completing an on-site examination—as opposed to waiting for an annual performance review. This evaluation form enables the Financial Institutions Supervision Group to receive feedback on the staffs' development needs and encourages two-way communication between management and staff. The redesigned training and job rotation processes ensure that a staff's Individual Development Plan and performance evaluation are considered as an input to identify training needs.

6.4 New Organization Structure

Consistent with the goal of achieving more efficient supervision, a review of the Financial Institutions Supervision Group's organization structure was performed. After identifying weaknesses and inefficiencies, a new structure was developed and implemented on January 1, 2001. The new flatter organization structure divides the examination function into six functional departments (see Appendix 2).

Of note within the new organization structure are two new departments: Risk Management Information System Examination and Planning and Development Departments. The Risk Management and Information System Examination Department is responsible for providing examination specialists in various risk areas when complex situations are beyond the expertise of the generalist examiner. This Department is also responsible for developing and maintaining an examination policies and procedures manual and updating the examination report format to properly conform with the risk-focused approach to supervision. The Planning and Development
Department is a centralized unit within the Financial Institutions Supervision Group that is responsible for the planning and management of the examination process. This allows for reallocation of resources during the year as needed.

### 6.5 Key Next Steps

Significant change has occurred within the BOT's Financial Institutions Supervision Group. To further the development of the supervision function, two projects are currently underway. The first is the Supervision Information System project (SIS), which is focused on leveraging information technology to support day-to-day supervisory operations. The second is the Head Office and Regional Office Supervision Integration project, which is focused on improving the transfer of supervision between the BOT's Head Office and Regional Offices and on developing efficient and effective branch examinations. These projects are expected to complete by the end of year 2001.
APPENDIX

1. LISTING OF FINANCIAL INSTITUTIONS IN THAILAND
1. LISTING OF FINANCIAL INSTITUTIONS IN THAILAND

1.1 Commercial Banks

<table>
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<th>Locally-incorporated Banks</th>
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<tr>
<td>1. Bangkok Bank PCL</td>
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<td>2. Thai Farmers Bank PCL</td>
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<td>3. The Siam Commercial Bank PCL</td>
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<td>4. Bank of Ayudhya PCL</td>
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<td>5. The Thai Military Bank PCL</td>
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<td>6. Standard Chartered Nakornthon Bank PCL</td>
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<td>7. UOB Radanasin Bank PCL</td>
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<td>8. Bank of Asia PCL</td>
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<td>9. DBS Thai Danu Bank PCL</td>
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<td>10. Krung Thai Bank PCL</td>
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<td>11. Bangkok Metropolitan Bank PC</td>
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<td>12. Siam City Bank PCL</td>
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<td>13. BankThai PCL</td>
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<th>Branches of Foreign Banks</th>
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<tbody>
<tr>
<td>1. The Hongkong and Shanghai Banking Corp., Ltd.</td>
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<tr>
<td>2. Standard Chartered Bank</td>
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<tr>
<td>3. Citibank, N.A.</td>
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<tr>
<td>4. The Sakura Bank, Ltd.</td>
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<tr>
<td>5. Oversea Chinese Banking Corp., Ltd.</td>
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<td>6. ABN-AMRO Bank N.V.</td>
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<td>7. The International Commercial Bank of China</td>
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<td>8. Bharat Overseas Bank Ltd.</td>
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<td>9. Bank of America, N.A.</td>
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<td>10. The Bank of Tokyo-Mitsubishi, Ltd.</td>
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<td>11. The Chase Manhattan Bank, N.A.</td>
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<td>12. Deutsche Bank AG.</td>
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<td>13. RHB Bank Berhad</td>
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<td>14. Credit Agricole Indosuez</td>
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<td>15. The Dai-Ichi Kangyo Bank, Ltd.</td>
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<td>16. Dresdner Bank AG.</td>
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<td>17. BNP Paribas</td>
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<td>18. The Sumitomo Bank, Ltd.</td>
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<td>19. The Industrial Bank of Japan, Ltd.</td>
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<td>20. The Bank of China</td>
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<td>21. The Bank of Nova Scotia</td>
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</table>
1.2 Banks Granted International Banking Facility Licenses

Locally-incorporated Banks

1. Bangkok Bank PCL
2. Thai Farmers Bank PCL
3. The Siam Commercial Bank PCL
4. Bank of Ayudhya PCL
5. The Thai Military Bank PCL
6. Standard Chartered Nakornthon Bank PCL
7. Bank of Asia PCL
8. DBS Thai Danu Bank PCL
9. Krung Thai Bank PCL
10. Bangkok Metropolitan Bank PCL
11. Siam City Bank PCL

Branches of Foreign Banks

1. The Hongkong and Shanghai Banking Corp., Ltd.
2. Standard Chartered Bank
3. Citibank, N.A.
4. The Sakura Bank, Ltd.
5. Oversea Chinese Banking Corp., Ltd.
6. ABN-AMRO Bank N.V.
7. Bank of America, N.A.
8. The Bank of Tokyo-Mitsubishi, Ltd.
9. The Chase Manhattan Bank, N.A.
10. Deutsche Bank AG.
11. Credit Agricole Indosuez
12. The Dai-Ichi Kangyo Bank, Ltd.
13. Dresdner Bank AG.
14. BNP Paribas
15. The Sumitomo Bank, Ltd.
16. The Industrial Bank of Japan, Ltd.
17. The Bank of China
18. The Bank of Nova Scotia
Stand-alone IBFs

1. Societe Generale
2. American Express Bank, Ltd.
3. The Sanwa Bank, Ltd.
4. ING Bank N.V.
5. The Bank of New York
6. United Overseas Bank, Ltd.
7. Credit Lyonnais
8. Overseas Union Bank, Ltd.
9. The Tokai Bank, Ltd.
10. The Fuji Bank, Ltd.

1.3 Finance Companies

1. Ayudhya Investment and Trust PCL
2. Kiatnakin Finance PCL
3. Tisco Finance PCL
4. Thaksin Finance Co., Ltd.
5. National Finance PCL
6. Radhanatun Finance PCL
7. Primus Finance Co., Ltd.
8. The Siam Industrial Credit PCL
9. Ekachart Finance PCL
10. GE Asia Finance PCL
11. The Book Club Finance PCL
12. Bangkok First Investment and Trust PCL
13. Krunghthai Thanakit Finance PCL
14. Global Thai Finance Ltd.
15. NF Finance Co., Ltd.
16. BOA Finance Ltd.

1.4 Finance & Securities Companies

1. Citicorp Finance and Securities (Thailand) Ltd.
2. BTM Finance and Securities (Thailand) Ltd.
3. AIG Finance (Thailand) PCL
4. Thai Sakura Finance and Securities Co., Ltd.

1.5 Superfinance Companies

Asia Credit PCL
1.6 Credit Foncier Companies

1. Bangkok Home Ltd.
2. Thai Keha Credit Foncier Co., Ltd.
3. Thanapat Credit Foncier Co., Ltd.
4. Credit Foncier Unico Housing Ltd.
5. Land and Houses Credit Foncier Co., Ltd.
6. Vanit Credit Foncier Co., Ltd.
7. Saving Credit Foncier Co., Ltd.
8. Sahaviriya Credit Foncier Co., Ltd.
9. Asia Credit Foncier Co., Ltd.
10. Sinkehakan Credit Foncier Co., Ltd.

1.7 Specialized Financial Institutions (SFIs)

1. Bank for Agriculture and Agricultural Cooperatives (BAAC)
2. Government Housing Bank (GHB)
3. The Government Savings Bank (GSB)
4. Export-Import Bank of Thailand (EXIM)
5. The Industrial Finance Corporation of Thailand (IFCT)
6. The Small Industry Finance Corporation (SIFC)
7. Asset Management Corporation
8. Secondary Mortgage Corporation (SMC)

1.8 Asset Management Companies (AMC)

1. Bangkok Commercial Asset Management Co., Ltd.
2. Chatuchak Assets Management Co., Ltd.
3. Chanthaburi Assets Management Co., Ltd.
4. Tawee Assets Management Co., Ltd.
5. Palarb Asset Management Co., Ltd.
6. MAX Asset Management Co., Ltd.
7. Radanasin Asset Management Co., Ltd.
8. Sukhumvit Asset Management Co., Ltd.
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<td>1.</td>
<td>ABN Amro Securities Trading PCL</td>
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<td>2.</td>
<td>Adkinson Securities PCL</td>
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<td>3.</td>
<td>Asset Plus Securities Co., Ltd.</td>
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<td>4.</td>
<td>Ayudhya Securities Co., Ltd.</td>
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<td>5.</td>
<td>BNP Prime Peregrine Securities (Thailand) Ltd.</td>
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<td>6.</td>
<td>Capital Nomura Securities PCL</td>
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<td>7.</td>
<td>Citicorp Securities (Thailand) Ltd.</td>
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<td>8.</td>
<td>DBS Thai Danu Securities Ltd.</td>
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<td>10.</td>
<td>Dhanasiam Securities Co., Ltd.</td>
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<td>11.</td>
<td>Financa Securities Co., Ltd.</td>
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<tr>
<td>12.</td>
<td>Indosuez W.I. Carr Securities (Thailand) Ltd.</td>
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<td>13.</td>
<td>ING Baring Securities (Thailand) Co., Ltd.</td>
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<td>15.</td>
<td>KGI Securities One PCL</td>
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<td>17.</td>
<td>Kim Eng Securities Ltd.</td>
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<td>18.</td>
<td>Merill Lynch Phatra Securities Co., Ltd.</td>
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<td>21.</td>
<td>Paribas Equity (Thailand) Ltd.</td>
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<td>22.</td>
<td>Phillip Securities (Thailand) Co., Ltd.</td>
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<td>23.</td>
<td>SCB Book Club Securities Securities (Thailand) Ltd.</td>
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<td>24.</td>
<td>SCB Securities Co., Ltd.</td>
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<td>25.</td>
<td>Seamico Securities PCL</td>
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<td>26.</td>
<td>SG Asia Credit Securities Co., Ltd.</td>
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<td>27.</td>
<td>SICCO Securities PCL</td>
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<td>28.</td>
<td>Thai Sakura Securities Co., Ltd.</td>
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<td>29.</td>
<td>Thai Thanakit Securities Co., Ltd.</td>
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<td>30.</td>
<td>Tisco Securities Co., Ltd.</td>
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<td>31.</td>
<td>TSFC Securities Ltd.</td>
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<td>32.</td>
<td>UBS Warburg Securities Co., Ltd.</td>
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<td>33.</td>
<td>United Securities PCL</td>
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<td>34.</td>
<td>UOB Securities (Thailand) Co., Ltd.</td>
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<td>35.</td>
<td>Vajira Securities Co., Ltd.</td>
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<td>36.</td>
<td>Yuanta Securities (Thailand) Co., Ltd.</td>
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1.9 Securities Companies
2. ORGANIZATION

STRUCTURE OF

THE BOT