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**THE STRUCTURE OF THE US BANKING SYSTEM**  
**AND BANKING SUPERVISION**

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## **INTRODUCTION**

### **1 – Objectives and Structure of This Paper**

The purpose of this paper is to provide the reader with a broad view of the US banking system, its regulators and some problems it has faced during the eighties. As the main focus is commercial banks, chapter one defines and classifies this kind of financial institution. It is also necessary to link the bank to their respective primary regulator, therefore in this chapter the principal federal agencies responsible for banking regulation are also introduced. The following chapter presents the banking holding companies (BHCs) in more detail due to their relevance to the US banking system.

Chapter three contains and defines some common financial statement accounts. As well some consolidated data regarding the US banking system is presented and, in the fourth chapter, the major banking laws are discussed.

The last two chapters regard specifically the banking supervision, its procedures and tools, and the relation between it and the eighties crisis. Finally, in closing, the conclusions highlight the principal aspects mentioned before and, in few words, establishes a comparison between the US financial crisis during the eighties and the Brazilian financial crisis during the nineties. The following section of this introduction will present some basic concepts and introduce some fundamental aspects of the US financial system.

## **2 – Some Basic Aspects about the US Financial System**

A financial system performs many functions which are directly or indirectly related to resource allocation. According to Sinkey [1998], some of these functions are:

1. to clear and to settle payments;
2. to aggregate and to disaggregate wealth and flows of funds bringing together large/small-scale investors with savers;
3. to shift financial resources over time, space and industries;
4. to accumulate, to process and to disseminate information for decision making purposes;
5. to provide ways for managing uncertainty and controlling risk;
6. to provide ways for dealing with incentive and asymmetric information problems that arise in financial contracting.

All financial institutions perform some of the related functions but only commercial banks perform all of them and are the most responsible for the evolution of each individual function. This is one of the reasons the banking system is the most important sector of any financial system. In the US, the principal financial institutions are:

- Commercial and investment banks (domestic and foreign);
- Savings and loans (S&Ls), savings banks, and credit unions, also called thrift institutions;
- Insurance companies;
- Private and government pension funds;
- Finance companies which deal either with consumer and commercial;
- Mutual funds as money market, hedge, bond, stock;
- Nonfinancial corporations such as General Motors Acceptance Corporation (GMAC) and General Electric Capital Services (GECS).

Among financial institutions, banks, S&Ls, and credit unions are known as depository institutions. The firms that are not in this category are called nondepository institutions. As mentioned before, this work will regard just the US banking system, its institutions, regulators and supervisors.

## **1 - THE US BANKING SYSTEM**

### **1.1 - Legal Definition of a Commercial Bank**

The 1970 amendment to the Bank Holding Company Act of 1956 defines a commercial bank as an institution that "(1) accept[s] deposits that the depositor has a legal right to withdraw on demand and (2) engages in the business of making commercial loans".

## 1.2 - The Basic Kinds of Existing Commercial Banks

The three basic commercial banks, or just banks here after, are:

1. national banks: they can operate in all fifty states and abroad;
2. state banks: they can operate just within a state and abroad;
3. Bank holding company (BHC): it is an organization that owns one or more banks which may be either national or state banks.

Depending on the kind of the bank, its birth begins with a charter obtained at the national or the state level. Charters for national banks are granted by the Office of the Comptroller of the Currency (OCC), while state governments, including the District of Columbia grant those for state banks. Today a state charter is very unlikely to be obtained without FDIC insurance although it is legally possible. As a result, the FDIC, effectively, has the chartering power for state banks. It is important to stress that the Federal Reserve System does not charter any kind of financial institution.

## 1.3 - Banking Principal Regulatory Agencies

1. **The Federal Reserve System** is an independent federal agency created in 1913 by "The Federal Reserve Act" (see chapter 5). Despite being part of the executive branch it is not under the direct control of the President (see diagram 1). Regarding banking supervision, the FED among other tasks:

- supervises and examines all state member banks;
- supervises and examines all BHCs operating in the US. In this case just the holding company and the respective state member banks under it are supervised. If the BHC has national or state nonmember banks under it, the FED supervises just the holding company;
- analyses and approves all applications of member banks to merge and to branch;
- approves the establishment of additional branches and supervises all foreign banks operating in the US;
- charters and licenses foreign branches of US national and state member banks;
- offers access to the discount window to all US depository institutions;
- establishes reserve requirements to all depository institutions operating in the US.

2. **The Comptroller of the Currency** is a special office of the US Treasury created in 1863 by "The National Bank Act" (see chapter 5). Different from an independent agency, the Treasury is a "Cabinet Department" under the control of the President (see diagram 1). The principal responsibilities of the OCC are:

- to charter and to supervise all national banks;
- to analyze and approve all national bank applications for new branches, mergers, and acquisitions;
- to charter and approve federal US branches of foreign banks

3. **Federal Deposit Insurance Corporation** was created by "The Banking Act of 1933", also known as "The Glass-Steagall Act" (see chapter 5), to guarantee deposits up to an initial established limit of US\$ 2,500. Today, considering the public's deposit, the amount insured is US\$ 100,000.00. After FIRREA was passed in 1989 (see chapter 5), the Federal Savings and Loan Insurance Corporation (FSLIC) was shifted to the FDIC and, since then, this corporation has also been responsible for managing thrift insurance

funds. The national and the FED member banks are required to obtain FDIC insurance; however, the state nonmember banks are not required to do so. They may be insured by state-authorized insurance funds. Besides this task of insuring public's deposits, FDIC has the following responsibilities:

- analyses and approves applications of insured state nonmember banks to establish branches and to merge;
- supervises all insured state-chartered nonmember banks;

**4. Department of Justice:**

- reviews and approves proposed bank mergers and holding company acquisitions regarding their effects on market concentration. The intention is to keep a competitive market which is intended to offer better services to the public at lower prices;

**5. Securities and Exchange Commission:**

- reviews and approves public offerings of debt and equity securities by banks or BHC;

**6. State Banking Boards or Commissions:**

- charter and supervise all state banks;
- they have the right to approve all applications of the respective state banks to form a holding company or to establish branches;
- charter state US branches of foreign banks.

Diagram 1: An Outline of Government in the United States of America

Constitution of the United States of America (Federal Government)							
Legislative Branch		Executive Branch			Judicial Branch		
The Congress		The President			The Supreme Court		
House	Senate	The Vice President			Federal Appeals Courts		
Independent Federal Agencies (*)		The "Cabinet Departments"					
. The Federal Reserve System		. US State Department					
. Federal Election Committee		. US Treasury (**)					

	. Export-Import Bank			. US Defense Department		
	...			...		
* These agencies are created by the Congress and are classified as part of the Executive but						
are not under the direct control of the President;						
** The US Treasury is divided into Bureaus and Offices. One of these offices is the						
Comptroller						
of the Currency.						

#### 1.4 - The Structure of the Federal Reserve System (FED)

The Federal Reserve System was created in 1913 as the nation's central bank. Today the FED is spread throughout the US and consists of:

- **the Board of Governors:** the center of authority and decision making. It is located in Washington DC and must contain no more than seven people selected by the president of the US and confirmed by the US senate. They are chosen for a 14-year term, with each one expiring on January 31 of each even-numbered year. The board chairman and vice chairman are appointed by the president among the seven members and confirmed by the senate, both for a four-year term. The Board of Governors is supported by a 1,700 people staff;
- **the Federal Open Market Committee (FOMC):** in addition to the seven members of the Board of Governors, this committee is composed by the president of the FED bank in New York, and the presidents of four other FED banks serving on a rotating basis. The FOMC's task is to set monetary policies regarding the open market operations, the growth of the monetary aggregates and the operations undertaken directly by the Federal Reserve in foreign exchange markets;
- **twelve district Federal Reserve Banks:** they operate within each district. The respective headquarters are located in Boston, New York, Philadelphia, Cleveland, Richmond, Cleveland, Atlanta, Chicago, St.Louis, Minneapolis, Kansas City, Dallas, and San Francisco. Among the services offered to depository institutions operating within their districts are (1) wire transfers of funds between banks and other depository institutions; (2) safe-keeping of securities owned by banks and their customers; (3) issuing new securities from the US Treasury and selected other federal agencies; (4) making short-term loans to banks and other depository institutions through the "discount window"; (5) maintaining and dispensing supplies of currency and coin; (6) clearing and collecting checks and other cash items moving between cities; (7) providing information to keep bankers and the public informed about regulation changes and other issues regarding the welfare of their institutions; and (8) supervising member banks and BHCs;
- **twenty five FED district bank's branches:** help the respective district bank to perform their tasks;
- **three advisory committees:** (1) the Federal Advisory Council is required to meet four times each year with the Board of Governors to discuss economic and banking matters; (2) the Consumer Advisory Council, which has thirty members - academics, legal specialists in consumer matters, and members representing consumers and the financial institutions - meets with the Board three times a year on issues concerning consumers and the consumer credit protection laws administered by the Board; and (3) the Thrift Institutions Advisory Council, established in 1980, is made up of representatives of savings and

loan associations, savings banks, and credit unions to obtain information and opinions on thrift institutions matters.

- **member banks:** as previously mentioned, US banks can be divided into three kinds, according to which agency charters them. Those chartered by OCC are national banks and, by law, they are members of the FED. Those chartered by the states are divided into those that are members of the FED (also called "state member banks") and those that are not (also called "state nonmember banks"). It is important to take into account that the FED, which is concerned basically with the supervision of BHCs, state member banks and foreign banks, does not necessarily examine a member bank. The member banks not supervised by the FED can use the other services offered by this agency such as clearing interbank payments, cash services (distribution of currency and coins), collection of checks, processing of electronic funds transfers and the discount window. To the public, a member bank is more reliable because in order to become a member, the institution has to meet the standards set by the Board of Governors. On the other hand a nonmember depository institution might be obliged to follow any of FED rules. This is the case of the reserve requirements. Under the Monetary Control Act of 1980 (see chapter 5), all depository institutions were subject to the same reserve requirement structure. Even access to the FED credit facilities and to the FED services, including check clearance and transfer of funds, is possible for a nonmember institution through an explicit fee schedule; which is also established for member banks.

According to the FDIC, at the end of 1996, there were 3,742 insured FED member banks. Among them 2,726 were national banks and 1,016 were state banks - out of 9,528 insured commercial banks nationwide. Only 242 (2%) were uninsured banks.

At the end of 1997, according to the FED board, the state-member banks had U\$ 1,228.1 billion in assets while the national banks had U\$ 2,850.5 billion and the state-nonmember had U\$ 1,116.7 billion. Therefore, considering just the domestic banks, the FED was responsible for examining 24% of the total assets of the US banking system. In addition, the FED has to examine the offices of foreign banks operating in the US and the banking holding companies as mentioned before.

### 1.5- Kinds of Commercial Banks

1. according to the regulator (supervisor):

- National bank (OCC);
- State member bank (FED + state authority);
- State insured nonmember bank (FDIC + state authority);
- State noninsured bank (state authority only);
- Bank holding company (FED);

2. structure or organizational form:

- Unit bank (just one unit where the headquarter is located and customers are served);
- Branch bank (the headquarter and at least one branch);
- One bank holding company;
- Multibank holding company;

3. type of business:

- Wholesale bank;

- Retail bank;
- Wholesale/retail bank;
- Private bank (for individuals with high net worth);
- "Shadow" bank (e.g. check cashing outlets, for individuals with little or no net worth).

### 1.6- Other Depository Institutions and Their Regulators

Another important sector of the financial system regarding the depository institutions is composed of thrift (savings) institutions. Basically these companies offer accounts for which the principal purpose is to provide interest on the deposited savings. There are four basic kinds of thrift institutions:

- **credit union**: financial cooperative organization of individuals who have a common bond, such as place of employment, residence or membership in a labor union. Credit unions accept deposits from members, pay interest in the form of dividends on deposits, and use their funds to provide consumer installment loans to members;
- **savings bank**: historically a depository institution primarily engaged in accepting consumer savings deposits and in originating and investing in securities and residential mortgage loans. Now they may offer checking deposits and make a wider range of loans;
- **savings and loan association (S&L)** is a depository institution that historically accepted deposits mainly from individuals and invested heavily in residential mortgage loans. Similar to savings banks, the S&Ls may now offer checking deposits and make a wider range of loans;
- **thrift holding company (THC)**: this kind of institution is analogous to the bank holding company (BHC).

The federal agency responsible for the credit unions is the National Credit Union Administration (NCUA) while the Office of Thrift Supervision (OTS), within the Department of Treasury, was created to oversee the savings banks, S&Ls and the THCs. In table 1 the division of total assets among the institutions in the US financial system is shown.

Table 1: Market Shares and Total Assets for Selected US Financial Sectors (in \$ trillions)

Sector	1978	% of market	1995	% of market
Commercial banks	1.2	41.4	3.5	36.4
US banks	1.1	37.9	3.1	32.3
Foreign banks	0.1	3.4	0.4	4.2
Thrift institutions	0.7	24.1	1.2	12.5
Insurance cos.	0.5	17.2	2.0	21.9
Private pension funds	0.3	10.3	0.7	7.3
Funds: mutual + money market	0.1	2.0	1.3	13.5
Finance companies	0.1	3.4	0.6	6.2
Others	0.0	1.0	0.2	2.1



Total	2.9	100.0	9.6	100.0
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Source: Federal Reserve Board, "Flow of Funds Accounts".

## 2 - BANK HOLDING COMPANIES (BHCs)

As already emphasized, a bank can be owned by a holding company (BHC), otherwise the bank is known as an independent bank. Since BHCs are the dominant organizational form in US banking in terms of consolidated assets, this chapter will describe BHCs in more detail. For example, at the end of 1994, BHCs had almost 67% of deposit market share considering all depositories institutions. Taking into account just the banking system, the banks belonging to BHCs controlled 93% of total deposits (see table 2). Table 3 shows how diverse a BHC can be regarding total assets; banks controlled, branches, and number of employees.

Several decades ago, when branch banking was prohibited or severely restricted, BHCs often became the most viable alternative in the US in order to allow the banks to geographically expand their activities. By definition, a BHC is a corporation chartered for the purpose of holding the stock (equity shares) of at least one bank. Many holding companies hold a small portion of the shares of one or more banks, escaping government regulation.

However, if a holding company wants to control a bank, purchasing at least 25% of the equity capital or being able to elect at least two directors, it must submit an application to be reviewed and approved by the FED Board. Thereafter, as a registered BHC, the company will be supervised by the FED, according to the respective regulation. The rules regarding this matter were set by the BHC Act of 1956 and amended in 1970.

A registered BHC that wishes to acquire an additional 5% or more of the equity shares of a bank also must submit an application to the FED Board and demonstrate that such acquisition will not significantly damage competition in the local market, will promote public convenience, and better serve the public's need for banks.

Other reasons for the growth of these companies were their greater ability to raise funds; to leverage; to get tax advantages especially considering the possibility of offsetting profits from one business with losses generated by other firms that are part of the same company; and their ability to expand regardless of state or national borders. The table 3 shows some information about the largest BHCs in 1996.

Table 2 (panel A): The Distribution of FDIC Insured Depository Institutions

Type of Institution (1984)	Number of Firms	% of Total	Deposits in billion dollars	% of Deposits
Banking organizations	11,342	38.0	1,614	61.4
Independent banks	5,698	19.1	210	8.0
One-BHC	4,926	16.5	468	17.8
Multi-BHC	718	2.4	936	35.6
Thrift institutions	3,414	11.4	930	35.4
S&L associations	2,882	9.6	698	26.5
Federal Savings banks	264	0.9	122	4.6
State savings banks	268	0.9	111	4.2

Credit unions	15,126	50.6	84	3.2
Total	29,882	100.0	3,321	100.0

Source: Federal Reserve Bulletin (January 1996), p.5.

Table 2 (panel B):

Type of Institution (1994)	Number of Firms	% of Total	Deposits in billion dollars	% of Deposits
Banking organizations	7,898	36.1	2,383	71.7
Independent banks	2,634	12.0	170	5.1
One-BHC	4,464	20.4	523	15.7
Multi-BHC	800	3.7	1,690	50.9
Thrift institutions	2,058	9.4	685	20.6
S&L associations	776	3.5	147	4.4
Federal Savings banks	756	3.5	358	10.8
State savings banks	526	2.4	180	5.4
Credit unions	11,927	54.5	254	7.6
Total	21,883	100.0	3,321	100.0

Source: Federal Reserve Bulletin (January 1996), p.5.

Another important characteristic of a BHC is its ability to own or control a nonbanking business as the FED Board has defined it since 1971. Similar to banks, BHCs are basically allowed to run finance companies, mortgage companies, data processing firms, leasing companies, security brokerage firms, credit life insurance companies, credit card companies, and management consulting firms. In 1996 the FED Board announced that well-capitalized and well managed BHCs would no longer need FED approval to start new nonbank businesses in industries already declared permissible for BHCs to enter.

Table 3: The Diversity of Large BHC's (June 30,1996)

Company-State	Total Assets	Banks	Branches	Employees
Chase Manhattan-NY	322 bi	2	745	68,828
Citicorp-NY	267 bi	7	473	87,700
Bank America-CA	239 bi	14	1,923	78,300

J. P. Morgan & Co.-NY	199 bi	2	4	15,390
NationsBank-NC (1)	192 bi	6	1,948	62,137
First Union-NC	140 bi	12	1,977	45,353
Bankers Trust-NY	115 bi	3	0	5,427
First Chicago NBD-IL	114 bi	10	742	34,445
Wells Fargo-CA	108 bi	1	1,580	41,548
Bank One-OH	97 bi	56	1,503	51,200
Total	1,793 bi	113	10,895	428,328

Source: Adapted by Sinkey [1998] from company quarterly reports, call reports, and The Wall Street Journal for closing prices.

(1) This data does not consider the merging of Nations Bank and Bank of America that occurred in 1998.

One of the main advantages of nonbanking businesses for BHCs is related to the possibility of these firms to expand across national and state borders more easily without many of the legal restrictions banks often face when they are willing to branch out. Another reason for banks to enter in nonbanking activities is the opportunity of diversifying the sources of revenue. In this case, BHCs can take advantage of negatively correlated cashflows from different business lines and they are, therefore, able to decrease their risk exposure.

Even though they are a smaller group - in the 1990s they were about 900 - the multibank holding companies (MHCs) controlled about 70% of the consolidated assets of all US banking organizations.

Unlike an independent bank, the holding company may have under its control either banking and nonbanking firms legally separated. It also gives the same stockholders the right to control both bank and nonbank firms. Outside the US, even though the holding company form is usually legal, it is rarely used, except in Netherlands and Italy. This is because in other countries, like Brazil, the banking regulation permits banks to hold directly nonbanking firms and imposes less restrictions regarding branching and bank services than in the US.

Branch banks and bank holding company organizations have many characteristics in common. Therefore, many criticisms to which branch banks are subjected has been applied to bank holding company banking as well. The most common is the allegedly increasing of market concentration due to BHCs which overcharge the customer, are indifferent to local community needs, and operate more aggressively taking excessive risks.

On the other hand, those who advocate the benefits of this financial system movement towards to the bank holding company form argue that these organizations promote greater efficiency in banking due to their greater scale, they foster competitive rivalry in the industry, strengthen individual banks against failure, and offer the public more services more conveniently than independent banks can do.

### 3 - BANK'S MAIN FINANCIAL STATEMENTS & SOME CONSOLIDATED DATA

#### 3.1 - The Balance Sheet

Respecting the restrictions imposed on US banks regarding nonbanking activities, the accounts in a balance sheet (or "report of condition") of a typical US commercial bank are similar to a regular Brazilian commercial bank. Table 4 shows a list of these accounts. Following, there is an explanation of some of them.

Table 4: Key Items on Bank Balance Sheet or Report of Condition

ASSETS	LIABILITIES
Non interest cash & deposits due from banks	Deposits
Investment securities	Core deposits
available-for-sale security	demand deposits
held-to-maturity security	NOW and ATS accounts
Federal funds sold and resale agreements	money market deposit accounts
Loans	other savings deposits
Consumer	time deposits under \$ 100 million
real estate	Time deposits of \$ 100 million or more
Commercial	Deposits in foreign offices
Agriculture	Federal funds purchased & repurchase agree.
financial institutions	Other short-term debt
Less: allowance for possible loan losses	Acceptances and other liabilities
Less: unearned discount on loans	Total Liabilities
Net Loans	Stockholders' equity capital
Bank premises and equipment	Common stock
Acceptance and other assets	Preferred stock
	Capital surplus
	Retained earnings
	Capital reserves
TOTAL ASSETS	TOTAL LIABILITIES AND EQUITY

Source: Rose [1996].

- **cash and deposits due from banks:** includes cash held in the bank's vault, any noninterest deposit the bank placed in another bank, cash items in process of collection and the balance of reserve account held with The Federal Reserve Bank respective to the district where the bank is headquartered. These reserves are also called "primary reserves" because they are the first source of funds against deposits withdrawals and when a preminent opportunity of investment presents itself;
- **investment securities available for sale:** also known as "secondary reserves", typically includes short-term bonds, especially governmental bonds (Treasury, state and local government) and money market

securities (bills, commercial papers, bankers' acceptances, etc.). Usually these reserves are used to meet cash demands;

- **investment securities held to maturity:** consists of all bonds, notes and other securities held by the bank for their expected rate of return;
- **federal funds sold:** the funds on deposit in a reserve account held with a FED bank are referred to as "federal funds or FED funds". Usually smaller banks are lenders and larger banks are borrowers in the "federal funds markets", generally on an overnight basis. The federal funds traded for longer periods are called "term federal funds". In this market, where only depository institutions can participate, foreign banks are particularly active. These operations, analogous to the Brazilian "interbank deposits", are cleared by "the FED wire system". The interest rates of these transactions are known as "FED funds rates" and play an important role in the financial market because all other short-term rates are related to them. The FED controls the FED funds rates either setting their value or allowing them to fluctuate over a wide band;
- **repurchase and resale agreements:** the repurchase/resale agreement is similar to the Brazilian "operações compromissadas". If a bank needs FED funds it can sell some securities to an investor (in this case it does not matter if the investor is or is not a banking company) and assume the compromise to repurchase them on a short-term basis. These funding transactions, also known REPOs, are the most important source of funds besides deposits and are registered on the liability side of the balance sheet. On the other hand, if a bank has FED funds to lend, it can buy some securities and assume the compromise to resell them on a short-term basis. This is the case of a "resale agreement", or just "reverse REPO", and they are registered on the asset side of the balance sheet. Usually these are overnight transactions but they can be set for the longer term in the case of "term REPO" or "term reverse REPO";
- **loans:** are the largest asset item and it is composed mainly of IOU loans ("I owe you"). The principal kinds of IOUs are consumer, real state, commercial and agricultural loans;
- **deposits:** a bank has two basic kinds of funding source: core deposits and managed liabilities (purchased funds). Core deposits are collected in local markets, have lower costs and tend to be less volatile. They are gathered in smaller amounts, generally under US\$ 100,000, the FDIC deposit-insurance ceiling. The most common types of core deposits are "demand-deposit accounts" (DDAs are noninterest bearing deposits), "negotiable orders of withdrawals" (NOW accounts), "money market deposit accounts" (MMDAs), savings accounts and small time deposits (composed mainly by certificates of deposit, or CDs). On the other hand, purchased funds, much more volatile than the core deposits, are gathered in the national and international money markets. This "hot money" of bank funding is rate-sensitive and is composed mainly of large time deposits (also called "jumbo" time deposits), deposits in foreign offices, FED funds purchased, REPOs, demand notes issued to the US Treasury, subordinated notes, debentures, and other borrowed money;
- **NOW accounts:** the Glass-Steagall Act of 1933 prohibited banks to pay interest on demand deposits (also see chapter 5). However, in 1974 mutual savings banks created this kind of interest-bearing checking account to compete with commercial banks. In 1980 all depository institutions were allowed to offer NOW accounts which can be held only by individuals and nonprofit institutions;
- **MMDAs:** these are the most important savings alternative offered by the banks. The MMDAs can pay whatever interest rate the bank feels is competitive but just a limited number of checks can be written on them per month;
- **other nondeposit sources:** the most important is the purchase of FED funds and the REPOs as previously mentioned. As well, a bank can borrow reserves from the discount windows of the FED banks, and can borrow overseas in the "eurodollar" market. A eurodollar deposit is just a dollar denominated deposit outside the US. This practice began in Europe hence the expression "eurodollar". Today this practice is

spread worldwide, particularly to Hong Kong, Singapore, Japan, the Middle East, and other important financial centers around the world.

Regarding some consolidated data, the following table shows that the principal asset item is the "Loans & Lease", which corresponds to more than 60% of the consolidated US commercial bank system. The interbank loans, performing 4%, are a relatively low item. On the liability side, the deposits correspond to 65% while the borrowings from the US banks are comparatively low.

The table 6 shows the evolution of some figures and illustrates the pronounced concentration process affecting the US banking system. According to that table the ratio "assets/bank" increased during the period between 1993 and 1997 from U\$ 338 millions to U\$ 547 millions per bank (almost 62%). However, the return on average equity and the ratio equity capital/assets remained steady, around 15% and 8% respectively. The following table shows some figures related to the Brazilian banking system after implementation of the economic plan called "Real Plan", which indicate a banking system in expansion.

Table 5: Commercial Banks in the US - Assets & Liabilities in June of 1998 (monthly average)

Account (ASSETS)	in U\$ bi	%	Account (LIABILITIES)	in U\$ bi	%
Securities	1,118	22	Deposits	3,212	65
US govern. Securities	755	15	Transaction	679	14
Other securities	363	7	Nontransaction	2,533	51
Loans and Leases (1)	3,137	63	Large time	681	14
Commercial/industrial	893	18	Other	1,852	37
Real estate	1,268	25	Borrowings	873	18
Consumer	497	10	From banks in the US	296	6
Securities (2)	127	3	From others	577	12
Other loans & leases	352	7	Due to related foreign offices	172	3
Interbank loans	215	4	Other liabilities	303	6
Cash assets	251	5	<b>Total liabilities</b>	4,561	92
Other assets	313	6	<b>Equity</b>	415	8
<b>Total assets (3)</b>	4,976	100	<b>Liabilities + Equity (3)</b>	4,976	100

Source: Federal Reserve Bulletin number 84 of September 1998.

(1) excludes FED funds sold, reverse REPOs and loans made to commercial banks in the US, that are included in Interbank loans

(2) consists of reverse REPOs with brokers and dealers, and loans to purchase and carry securities.

(3) Excludes unearned income, reserves for losses on loans and leases, and reserves for transfer risk.

Table 6: Evolution of Some Figures in the US Banking System in Recent Years

End of the Year à	1997	1996	1995	1994	1993
Total Assets (in \$ millions)	5,000,068	4,569,290	4,298,487	3,971,829	3,700,138
Equity Capital (in \$ millions)	414,956	373,663	347,669	308,335	295,423
Ratio Equity Capital/Assets (%)	8.3%	8.2%	8.1%	7.8%	8.0%
Net Income (in \$ millions)	59,251	52,368	48,883	44,134	43,017
Number of banks in the US	9,142	9,528	9,941	10,451	10,959
Ratio Assets/Bank (in \$ millions)	547	480	432	380	338
Ratio Net income/average equity	15.0%	14.5%	14.9%	14.6%	-

Source: FDIC [1997]

Table 7: Evolution of Some Figures in the Brazilian Banking System in Recent Years

End of the Year à	1997	1996	1995	1994
Total Assets (in \$ millions)	690,851	633,091	579,632	484,150
Equity Capital (in \$ millions)	60,837	60,852	49,653	55,681
Ratio Equity Capital/Assets (%)	8.8%	9.6%	8.6%	11.5%
Number of institutions in Brazil (see note 1)	1,428	1,352	1,307	1,276
Ratio Assets/Bank (in \$ millions)	484	468	443	379

Source: Central Bank of Brazil - SISBACEN, prepared by the author

(1) includes all banking sector (commercial, investment and multiple banks), leasing companies and savings banks

### 3.2 - Off-Balance Sheet Items

In recent years, the US banks have operated more heavily with transactions which are not recorded on their balance sheets. According to Rose [1996], the main examples of these "off-balance sheet" items are:

- **Standby credit agreements**, in which a bank pledges to guarantee repayment of a customer's loan received from a third party;
- **Interest rate swaps**, in which a bank promises to exchange interest payments on a notional value with another party;
- **Financial futures and option interest-rate contracts**, in which a bank agrees to deliver or to take delivery of a financial asset from another party at a guaranteed price;
- **Loan commitments**, in which a bank pledges to lend up to a certain amount of funds until the commitment matures;
- **Foreign exchange rate contracts**, in which a bank agrees to deliver or accept delivery of foreign currencies.

The problem with these off-balance-sheet transactions is that they often expose a bank to greater risk, which is more difficult to measure, and most times this risk does not shown up in conventional bank condition reports. For example, in a standby credit agreement, if the customer default, the bank is pledged to pay off the loan to the original lender. If a bank has many operations like this, the correct assessment of the risk exposure would be to regard each customer credit risk related to each standby credit agreement.

Table 8 illustrates off-balance-sheet items that correspond to 500% of total bank assets. Most importantly, these operations are concentrated in the largest banks - over US\$ 1 billion in total assets - where they are more than six times larger than the total of all reports bank assets.

In 1996, concerned about the higher risk exposure due to the increase of off-balance-sheet items, the Financial Accounting Standards Board (FASB) established that banks and other corporations must report the fair market value of their derivative contracts and also report any gains or losses on their financial reports at the same time period they occur.

These rules raised strong opposition that led FASB to reconsider their implementation. The opposition was based on the difficulty or even impossibility to determine a fair market value of many derivatives. Moreover, those rules would oblige the bank to increase the volatility of its income.

Table 8: Examples of Off-Balance-Sheet Items Reported by All Insured US Banks (12.31.96)

Off-Balance-Sheet Items (values in billion dollars)	All US Insured Banks	Banks under \$100 million total assets	Banks \$100 million to \$1 billion in total assets	Banks more than \$1 billion in total assets
Standby credit agreements	211.0	0.8	5.7	204.5
Interest-rate swaps (notional value)	7,069.4	0.1	7.1	7,062.2
Futures and forward contracts	3,201.2	0.3	0.8	3,200.1
Loan commitments (unused)	2,528.7	52.9	246.8	2,229.0
Foreign exchange contracts	6,503.8	*	2.5	6,501.3
Other off-balance-sheet items	3,839.4	1.0	8.4	3,830.0
Total off-balance-sheet items	23,353.5	55.1	271.3	23,027.1



Total assets reported	4,578.3	280.2	713.3	3,584.8
Ratio off-bal-sheet items/assets (%)	510.1 %	19.7 %	38.0 %	642.4 %

Source: FDIC, prepared by Rose [1996].

### 3.3 - The Income Statement

The principal revenue accounts in a typical bank's income statement are the interest income generated by loans and securities. On the other hand, the principal expenses are paid out to depositors, on nondeposit borrowings, and to bank employees. In table 9 some important items of a bank income statement or report of income are listed.

Table 9: Key Items on Bank Income Statement and Their Composition at the End of 1996

<b>Revenue and Expense Items</b>	<b>% of Total Assets for all Insured Banks</b>
Total interest income	6.83 %
Loan income	5.12 %
Security income	1.11 %
Federal funds sold & resale agreements	0.20 %
Other interest income	0.41 %
Total interest expense	3.28 %
Deposit interest	2.35 %
Federal funds purchased & REPOs	0.37 %
Other interest expenses	0.56 %
Net interest income	3.55 %
Provision for loan losses	0.35 %
Noninterest income	2.04 %
Service charges on deposits	0.37 %
Other noninterest income	1.67 %
Noninterest expenses	3.51 %
Salaries and employees benefits	1.46 %
Occupancy expenses	0.45 %
Other noninterest expenses	1.60 %

Net noninterest income	- 1.47 %
Securities gain or losses	0.02 %
Income before taxes	1.73 %
Taxes	0.62 %
Extraordinary items, net	(*)
Net income	1.14 %

(\*) less than 0.005 percent. Source: FDIC

#### 4 - BANK REGULATION AND THE MAJOR BANKING LAWS

According to Sinkey [1998], bank regulators have traditionally attempted to achieve three objectives: (1) safety, (2) stability, and (3) structure. Safety in the sense of protecting depositors and deposit insurance funds; stability in protecting the soundness of the financial system, and in particular in trying to prevent financial panic or contagion in the form of deposit runs. The third objective regards the promotion of even conditions among financial institutions, promoting competition and, consequently, market efficiency. One of the most important tools the regulators use to achieve these goals is the regulation. In this chapter the major banking laws are summarized:

- **The National Bank Act (1863)**: the first major federal laws in US banking, also known as the National Currency Act, passed during the Civil War in order to ensure a workable and safe national banking system. It created the Comptroller of the Currency responsible thereafter for chartering and supervising national banks. Another objective was to finance the Union's war effort;
- **The Federal Reserve Act (1913)**: a series of severe economic depressions and financial panics led to the creation of a second federal bank regulatory agency - the Federal Reserve System. Its principal roles were to serve as a lender of last resort providing temporary loans to banks facing financial emergencies and to help stabilize the financial markets in order to preserve public confidence;
- **The McFadden-Pepper Act (1927)**: allowed national banks to branch within the city where they were headquartered respecting the laws of the respective state. In other words this law subjected national banks to the branching restrictions of the state in which they were headquartered;
- **The Banking Act of 1933, or the Glass-Steagall Act**: this act, passed during the depths of the Great Depression, specified that national banks would be allowed to branch statewide, provided that the state where they were headquartered granted similar powers to its own state-chartered banks. On the other hand, it separated commercial and investment banking. It was also prohibited the payment of interest on demand deposits and imposed interest-rate ceilings in other deposits. The principal objective was to promote the safeness and the soundness of the banking practices and to protect small depositors. To achieve these objectives, it created the Federal Deposit Insurance Corporation, FDIC;
- **The Bank Holding Company Act of 1956 and its amendments (1966 and 1970)**: this law brought BHCs and any foreign bank that owned a US bank under comprehensive federal regulation for the first time. It also gave the FED primary control over BHCs that controlled two or more banks. Among other things, the FED could determine permissible nonbanking activities for BHCs, effectively separating banking and commerce. The 1970 amendment closed the loophole and required even the companies controlling just one US bank to register with the FED, and limited their acquisition of nonbank business firms to those business activities defined by the FED Board to be "closely related" to banking;

- **The Bank Merger Act of 1960**: concerned about the possible damage to competition and public service from bank mergers, Congress required in this piece of legislation that all mergers must be approved by each US bank's chief federal regulatory agency (OCC for national banks, FED for state member banks, and FDIC for insured nonmember banks);
- **The International Banking Act of 1978 (IBA)**: established an overall framework for regulating the full range of activities of foreign banks in the US and provided for a federal role in the supervision of branches and agencies of foreign banks that should be treated as "domestic banks" from 1978 onwards. Prior to this act foreign banks were licensed and supervised solely by state banking authorities;
- **Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA)**: the first broad federal deregulation law, the DIDMCA removed the federal interest rate ceilings on deposits sold to the public in order to improve competition. This removal was gradually set between 1980 and 1986. Also the deposit insurance limit was increased from U\$ 40,000 to U\$ 100,000. This act also allowed all federally supervised depository institutions to offer NOW accounts to individuals and nonprofit institutions;
- **The Garn-St Germain Act of 1982**: granted S&Ls new investment powers. With this law, they were allowed to offer demand deposits, and federally chartered S&Ls were allowed to invest up to 5% of their assets in consumer loans, and invest in state and local government revenue bonds). The banks were permitted to offer money market demand accounts "directly equivalent to and competitive with money market mutual fund"; liberating the loan limits for national banks, allowing them to lend up to 15% of their capital and surplus unsecured to a single borrower or 25% if the loan was fully secured. The banks were also allowed to issue net worth certificate to the FDIC and receive an inflow of new capital. This law granted FDIC and FSLIC broader authority to aid troubled institutions;
- **The Competitive Equality Banking Act of 1987 (CEBA)**: Besides providing for recapitalizing the fund of the FSLIC, this act authorized emergency interstate bank acquisition. The FDIC was permitted to takeover and operate failing banks; and to create "bridge banks" - new national banks especially created to take over the assets and liabilities of a failed bank and operated by FDIC for a limited period before their stock must be sold to the highest private bidders. Bridge banks could be established only where the cost of creating and operating them are less than of liquidating a troubled bank and continuing banking service is essential to the local community involved. Recently, the owners of several large troubled banks were allowed to split the loan portfolio into a "good bank" and a "bad bank". Non performing loans are sold by the good to the bad bank, which is given a separate charter. Money for purchasing these loans may be derived from sales of stocks or bonds. So the bad bank attempts to collect all or a portion of the troubled loans it has purchased;
- **The Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA)**: Despite the fact FIRREA's was concerned mainly with savings and loan companies, several important new rules affecting banks were also established. Prior to the FIRREA, BHC were authorized to purchase only failing savings banks and S&Ls. After that BHCs were allowed to acquire failing thrift institutions also. From the perspective of banking organizations, this law was significantly aided geographic expansions.

This act also granted the FDIC the power to levy cross-guarantee assessments. These charges can be assessed against the surviving banks of holding companies for any losses to the FDIC's insurance fund due to the failure of other banks owned by the same holding company. FIRREA moved the thrift deposit insurance (FSLIC) to the FDIC, dividing its insurance fund into a new Bank Insurance Fund (BIF) and a Savings Association Insurance Fund (SAIF), the latter to insure savings and loan deposits. This regulation also allowed S&Ls to convert to commercial banks if they can meet bank regulatory standards;

- **The Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA)**: this act provided liquidity to the FDIC by permitting it to borrow U\$ 30 billion from the US Treasury and authorizing it to borrow U\$ 45 billion using its assets as collateral, with the loans to be repaid from the sale of failed banks' assets. Also, it required bank regulators to develop measurements for describing the capitalization of banks and thrifts and to take "prompt corrective action" (PCA) when an insured depository becomes

undercapitalized. When the PCA fails to solve a troublesome situation and the institution's ratio of capital to total risk-adjusted assets is 2% or less, regulators may seize the bank and sell it to a viable institution. The FDICIA established that all banks over US\$ 100 million in assets have to be examined on-site by the federal agencies on an annual basis. For smaller banks, the new law required on-site examinations at least every 18 months. In this movement toward "reregulating" the banking industry, the federal banking agencies were required to improve the standards established for the banks they regulate regarding: loan documentation, internal management controls, management information systems, growth in real estate loans, interest-rate risk exposure, salaries and benefits paid to bank employees, and finally, compliance with the new guidelines.

- **The Riegle Community Development and Regulatory Improvement Act of 1994:** authorizes funding for community-development financial institutions, provides regulatory and paperwork relief for financial institutions, encourages development of secondary loans for small businesses, and makes changes to the reporting requirements for money laundering;
- **The Riegle-Neal Interstate Banking Law of 1994:** BHC could acquire banks anywhere in the US since the beginning of 1995 respecting the upper limit of 30% of insured deposits in a single state or 10% of nationwide insured deposits. This law also authorizes interstate banking and branching to US and foreign banks over a three-year period. Thus, for the first time in the US history, these new banking laws gave a wide spectrum of American bank power to take deposits and follow their customers across state lines. While banking services will be improved for many customers, some financial analysts fear that this new law will increase market concentration and threaten the survival of smaller banks.

After the approval of FDICIA in 1991, Congress ordered foreign banks to seek approval from the FED Board before opening or closing any US offices. Many analysts view this as a reaction to the fall of the huge Bank of Credit and Commerce International (BCCI) of Luxembourg in the early 1990s, which allegedly laundered drug money and illegally tried to secure control of US banks without regulatory approval. In addition the foreign banks that are seeking to open US branches must also apply for the FDIC insurance coverage if they wish to accept domestic deposits under US\$ 100,000. Moreover, if their home countries do not adequately supervise their activities, foreign bank offices in the US can be closed.

In another attempt to strengthen "market discipline", after 1994, Congress prevented FDIC from fully reimbursing uninsured and foreign depositors if their banks fail. Even the long-term financial aid provided by the FED to failing banks was restricted and became dependent on the FED, the FDIC and the current presidential administration agreement that all depositors should be protected in order to avoid damage to public confidence in the financial system. Congress's intent was to bring the force of "market discipline" to bear on banks that have taken on excessive risk and to encourage problem banks to solve their own problems without government help.

In an interesting final twist, Congress ordered the FDIC to undertake a study of the feasibility of having private insurers backstop the federal insurance fund's losses. The FDIC was told to develop a demonstration project in which selected private insurance companies would cover a small percentage (no more than 10%) of the FDIC's losses when an insured depository institution fails or receives government assistance, with FDIC paying premiums to the private companies that provide this coverage.

Concluding this chapter, between 1980 and 1994 there were two clear movements regarding the changes in regulation. At the beginning of the 1980s with passage of both DIDMCA and Garn-St Germain, deregulation of the financial services industry was dominant. However, as the crisis deepened, the emphasis turned to what has been described as reregulation in an attempt to provide a safer financial system.

## **5 - SOME ASPECTS OF THE US BANKING SUPERVISION**

This chapter as well as chapter 6 are based on the book "History of the Eighties - Lessons for the Future" published by the FDIC in 1997.

### **5.1 - Federal Agency Coordination**

The US banking supervision is referred to as a very complicated system involving, basically, five federal agencies (OCC, FED, FDIC, OTS and NCUA), fifty state commissions, and other regulators (see chapter 2). Therefore the coordination among the supervisions is obligatory. At the federal level the agencies began to coordinate their activities in the mid-1970s and started their shared national credit program for all loans U\$ 20 million or more that are owned by two or more banks. The examination of these credits are conducted independently by an interagency team of examiners, who review the loans for credit quality. The classification of these credits is then used in the regular examination process undertaken by each federal agency.

In 1977 the Interagency Supervisory Committee was established, included representatives from the five federal agencies and its role was to coordinate supervisory policies and procedures. A significant accomplishment of this committee was the adoption of a uniform interagency system for rating the condition of banks, the immediate predecessor of the CAMEL rating system. The uniform rating system provided a basis of comparison with the examination of all federally insured banks. Therefore, for the first time, meaningful reports on the condition of the banking system could be given to the public and to Congress.

The Financial Institutions Regulatory and Interest Rate Control Act (FIRIRCA) was passed in 1978 and then, in 1979, the Interagency Supervisory Committee was replaced by the Federal Financial Institutions Examination Council (FFIEC) consisting of the OCC, the FED Board, the FDIC, the OTS, and the NCUA. The council has power to work on the coordination of supervisory activities, uniformity of consumer protection laws and regulations, use of common data-gathering systems, and use of common educational programs.

Some of its early accomplishments were standardizing instructions and forms for banks' quarterly reports of condition and income (the computerized reports of condition are known as "call reports"), bringing uniformity to bank performance reports, instituting interagency examiner training, and preparing a number of uniform supervisory policy statements. One of the main results was the establishment and adoption of the "Uniform Financial Institutions Rating System" (UFIRS) based upon the CAMEL rating system.

## **5.2 - Off-Site Supervision**

During the early seventies, with the failure of two large national banks, the United States National Bank (USNB) in 1973 and the Franklin National Bank in 1974, the OCC commissioned an accounting firm to recommend changes in OCC's examination procedures. The recommendations suggested that OCC rely less on assets reviews, increase the reporting by banks and implement a computerized off-site surveillance system. Therefore, in 1975, the OCC introduced the National Bank Surveillance System, in which the basic tool was the Bank Performance Report (BPR)

Since then, bank supervisors have used computerized off-site surveillance systems to access the financial condition of banks and BHCs by analyzing Call reports and other sources of bank data. These remote analysis, updated quarterly (the Call reports are sent every three months), uses monitoring screens which consists of a series of tables reporting financial data and ratios for each institution. Those banks with ratios falling outside a pre-determined interval are considered exceptions and, therefore, are subject to additional supervisory review.

The remote surveillance intends to monitor the condition of banks between on-site examinations, identifying problems in a timely manner, assisting in allocating supervisory resources and in pre-exam planning process. Furthermore, off monitoring is far less intrusive than the on-site examinations, which are fundamental to ensure the integrity of the information used and critical to this kind of surveillance.

The FED off-site supervision system not only monitors the current financial condition of a bank but also estimates some ratings. This system, also known as "SEER" (System to Estimate Examination Ratings), has two main objectives: to provide an estimate of the bank's CAMEL rating and to estimate the probability of a bank failure within the next two years. Both estimates are based upon the Call report data and relate them to historical CAMEL ratings and bank failures. The SEER correctly predicts 75% of all CAMEL ratings and accurately forecasts 80% of bank failures.

## **5.3 - On-Site Supervision and the Federal Agency Policies**

Considering the scope, there are two basic kinds of on-site examinations: the targeted and the full-scope examinations. The first one is focused on a particular segment of a bank's business while the other, as its name suggests, is concerned about the whole operation of a bank. Due to the movement within the banking system towards large conglomerates, the full scope examinations will be discussed in this next section.

Currently there are four basic types of bank examinations. The first focuses on the banks trust department, to determine whether it is operating in accordance with regulations and standards. The second investigates whether the bank is in compliance with various measures designed to protect consumers, such as truth-in-lending requirements, civil rights laws, and community reinvestment regulations. A third type of bank examination focuses on the reliability of the bank's electronic data processing (EDP) systems. Finally and the most important, safety-and-soundness examinations focus on six key areas affecting the health of the bank. These six key areas will be more detailed further when will be presented the CAMELS rating system.

- **The OCC Policies:** The National Bank Act of 1864 required the OCC to examine all national banks twice a year but allowed an extension to three examinations every two years. In 1974, with the failure of the United States National Bank, the Comptroller of the Currency commissioned a review from the accounting firm "Haskins & Sells" in order to analyze the agency's procedures. The produced report had a major impact on the theory and practice of the federal bank supervision. It criticized the OCC's existing examination policy as inefficient and recommended the greater use of statistical, computerized off-site analysis, concentrating examinations resources on weak banks, and, in on-site examinations, greater emphasis on evaluating bank management and systems of internal control and less on detailed audits of bank assets.

In 1976 the OCC extended examination schedules to 18 months for banks with total assets less than US\$ 300 million. In general, on-site resources moved from nonproblem smaller banks toward the larger institutions and the increase use of continuous off-site analysis increased as well as the use of targeted rather than full-scope examinations.

- **FDIC Policies:** Until 1976 all institutions under FDIC supervision received a full-scope examination annually. Before that year, only problem banks (CAMEL 4 and 5 rated) were required to receive an annual full-scope examination. Those banks with CAMEL ratings of 3 were to be examined, at least, every 18 months. During the early 1980s, the FDIC also started to emphasize either the off-site monitoring or the examinations in problem banks (those considered to pose risks to the insurance fund).

In 1983, the examination interval for nonproblem banks was extended to 36 months. By 1985, problem banks were to receive examinations every 12-18 months; CAMEL 3-rated banks every 12-24 months, and higher-rated institutions every 36 months. If the higher-rated banks had total assets of less than US\$ 300 million, this interval could be extended to five years.

In 1986, facing a record number of problem banks, some of which had been highly rated, the FDIC revised its examination policies. The new policy called for all 1- and 2- rated banks to receive on-site examinations at least every 24 months, and all other banks to be examined by either the FDIC or the state examiner at least every year.

During the banking reregulation process, the passage of FDICIA in 1991 required annual on-site examinations for all banks except highly rated small institutions, for which the interval could be extended to 18 months. Therefore, a return to the examination policies of the seventies was completed.

- **FED Policies:** In the early eighties, the Federal Reserve Board also changed its examination policies placing more emphasis on off-site surveillance and slightly stretching out examination schedules. However, the examination frequency varied much less than the other agencies did. The FED board, in 1981, also extended the interval from one year to 18 months for all state member banks until 1985 when the previous annual requirement was reinstated.

## 5.4 - Enforcement Actions

Despite the fact that the enforcement actions are the last resort, a good set of enforcement actions is the basis of an effective banking supervision system. The ability to identify unlawful, unsafe and unsound practices is of limited usefulness without adequate authority to compel corrective actions. Most regulatory agencies have sufficient power to improve capital, levy fines, remove management, restrict dividends and other inappropriate funds transfers, and restrict riskier lending and excess asset growth. Bank chartering authorities also have the power to appoint a conservator or receiver, and the FDIC has the power to terminate or suspend deposit insurance. Also, their affiliated parties are also subject to these actions. As institution-affiliated parties is understood to be a person who participates in conduct of the affairs of the institution (directors, officers, employees, etc.), or an independent contractor (attorney, accountant, appraiser, etc.).

Basically there are two kinds of enforcement actions, formal and informal, in order to restrain practices such as self-dealing, fraud, potential criminal activities, inadequate policies/procedures, lack of internal controls, poor record keeping, insider transactions, failure to comply with previous supervisory actions and weak financial condition requiring capital injection.

According to FED procedures, there are four informal actions which are not enforceable in the courts: moral suasion (generally taken during the examination in attempt to persuade the bank to correct the defective procedure), commitment letters (the Reserve Bank sends a letter outlining the request and asking for a response indicating that the commitments were accepted), board resolution (the financial institution board writes this document committing the bank to adopt the suggested corrective measures) and, the most important, the Memoranda of Understanding - MOU (this is more highly structured, it is a written document signed by both the financial institution and the respective FED district bank). These informal actions are taken generally when a bank receives CAMELS 3 rating.

The formal actions, besides enforceable in the courts, must be publicly available. For this reason the FED has a press release service to publish these formal actions, generally taken against CAMEL 4 or 5 rating institutions. The principal tools used by the FED Board in formal actions are: written agreements/capital directives, cease-and-desist orders (require the bank or the affiliated party to cease, to desist and to take affirmative action to correct the violation or practice), removal and prohibition orders (the FED Board is authorized to remove and to prohibit permanently from the banking industry any affiliated party from future involvement with any insured depository institution, bank or thrift holding company, and nonbank subsidiary), civil money penalties (they may vary from US\$ 5,000 to US\$ 1,000,000 per day since the beginning of the irregular practice) and the termination of FR membership.

## **5.5 - The Use of Forbearance**

Forbearance is said to occur when supervisory authorities allow a bank to operate for a limited period of time without meeting established safety-and-soundness standards in order to take corrective actions to reduce risk exposure and other weaknesses. However, there are two extreme kinds of forbearance: the case-by-case forbearance designed to provide an opportunity to reduce risk exposure and correct weaknesses; and the "long term, wholesale" forbearance as sometimes practiced by the supervisory authorities during a period of crisis.

In assessing the effectiveness of forbearance programs, it is important to consider how banks are chosen to participate when the regulators are allowed to exercise discretion. Ideally, the regulators should be able to distinguish between institutions that are more likely to recover after a period of forbearance and those that are unlikely and, therefore, should not be granted forbearance. The ability to make such distinctions accurately is important for reasons of fairness and because of moral hazard. In making such distinctions, the regulators have the benefit of information derived from examination reports - information that is not available in financial reports or other public records. Nevertheless, picking winners and losers is difficult, and some writers have concluded that regulators were unsuccessful in their attempts.

Moreover, the forbearance program applied to group of banks may have adverse competitive effects on institutions outside the program. Unless restrained by the supervisory authorities, insolvent banks may offer above-market deposit rates and submarket loan rates, thereby weakening healthy competitors. In other words, while forbearance may provide an opportunity to correct weaknesses, without effective oversight it may also

permit further deterioration because allowing unprofitable banks to continue operating can increase resolution costs as operating losses accumulate. Even if it is successfully applied to some banks, forbearance may have undesirable effects if it encourages other banks to expect similar treatment.

Thus, forbearance programs may have many disadvantages and, when granted to a large number of institutions, they can be a disaster. However while the survival of the institution is not the only criterion for the success of forbearance programs, it remains significant that most of the banks in forbearance programs survived, and the minority that failed had losses comparable to, or lower than, those failed banks not included in the programs.

## **5.6 - The Role of the Deposit Insurance**

Deposit insurance is considered to involve a trade-off between stability and moral hazard. By protecting depositors against losses, deposit insurance virtually eliminates the risk of bank runs and breakdowns in bank lending. On the other hand, by assuming the risk of losses, that would otherwise be undertaken by depositors, deposit insurance eliminates any incentive for insured depositors to monitor bank risk, and "encourages" bank management to take increased risks. The term "moral hazard", regarding the deposit insurance, is referred to as an incentive that induces the insured to bear greater risks than if they were not insured because the possible negative effects will be borne by the insurer.

If a bank is insolvent or close to insolvency, the moral hazard matter is a particularly serious concern because in this case the risky investments are the most natural alternative to the owners seeking higher rates of return. The deposit insurance gives the owners the right to pocket the profits, whereas the losses fall on the insurer. However, because it is difficult to identify future distress, moral-hazard problems are inherent in deposit insurance, as in other types of insurance.

In attempt to controlling moral hazard there are three traditional means: (1) examination and supervision; (2) regulatory capital requirements and risk-based deposit insurance premiums; and (3) uninsured depositor and creditor discipline.

## **5.7 - The CAMELS Rating System**

The most important on-site examination, the "safety-and-soundness examination" is directed toward the five performance categories used in the UFIRS, namely, Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity. As of January 1, 1997, the bank and thrift regulatory agencies added a sixth component to the safety-and-soundness examination, known as the "sensitivity-to-market-risk" component. After that date, therefore, the CAMEL rating system would be referred to as "CAMELS". This new component evaluates how well institutions are prepared to protect bank fluctuations in portfolio values.

In the CAMEL system, a bank is rated from 1 to 5 in each component. The highest rating is 1 and the lowest is 5. After the overall condition of the bank is evaluated, the CAMEL rating is assigned. A composite CAMEL rating of 1 is given to banks performing well above average. A rating 2 is given to banks operating adequately within safety-and-soundness standards. A CAMEL rating 3 indicates below-average performance and some supervisory concerns. Performance well below average yields a CAMEL rating of 4, indicating that serious problems exist at the bank and need to be corrected. Finally, a CAMEL rating of 5 indicates severely deficient performance and a high probability of failure within 12 months

## **5.8 - Limitations of The CAMELS Rating System**

Although CAMEL ratings were reasonably successful in identifying banks that required greater supervisory attention, they also had limitations. First, they did not necessarily capture the severity of the situation of the banks that subsequently failed. Second, they are based on the internal operations of the bank and therefore do not take into account local economic developments that may pose future problems and are not yet reflected in the bank's condition. Third, they are generally a measure of the condition of the bank at the time it is examined. They do not systematically track risk factors that may produce future losses. Fourth, frequent use of on-site examinations imposes a burden on depository institutions.



Most banks that are designated as troubled banks (rated CAMEL 4 and 5) do not fail. This may be regarded as a deficiency of CAMEL ratings. On the other hand, examination ratings trigger the supervisory responses that may prevent troubled banks from failing or may reduce failure costs when the banks have to be closed. From this perspective, when supervisory efforts to cure bank problems as revealed by examinations have been successful, the failure forecasts based on these examinations will necessarily prove to have been inaccurate. Either way, the large number of troubled banks that do not fail and the large number of banks whose ratings do not change through repeated examinations are unavoidable consequences of the frequent use of on-site examinations.

However, on-site examinations provide information to the regulators that is otherwise unavailable, and they also help to ensure the accuracy of financial reports issued by the banks. As a result, the burden of frequent examinations must be borne if the condition of insured banks is to be monitored effectively.

## **5.9 - Managing the Market Concentration**

The banking market concentration is a major issue for regulators especially during the last years when a more intense acquisition and merger process has been noticed. All proposed mergers of insured banks and proposed acquisitions by BHCs must be approved by a federal banking regulator. The review of the proposal is conducted by the regulatory agency that will be the primary regulator of the surviving bank.

If the resulting institution is a national bank, the OCC reviews the proposal. If it is a state-chartered nonmember bank, the FDIC is responsible for the review. And if the proposal results in a state-chartered member bank or involves the acquisition by a BHC, the FED is the reviewer. The Department of Justice, which has the general enforcement authority under federal antitrust laws, reviews proposed mergers and acquisitions approved by the banking regulators.

Proposals for banking consolidations are reviewed under two primarily federal statutes, the Bank Merger Act of 1960 (as amended in 1966) and the BHC Act of 1956 (as amended in 1970). The legal standards applied by banking regulators under these statutes correspond to the standards set in the Sherman Antitrust Act of 1890 and the Clayton Act of 1914. Specifically, no bank merger or BHC acquisition may be approved if the effect creates a monopoly (Sherman Act) or may "substantially" lessen competition or tend to create a monopoly in a particular market (Clayton Act). Importantly, the Clayton Act does not define the term "substantially". Court decisions, as well as the legislative history of this act, however, make it clear that the term must be examined in the context of each industry.

## **6 - THE CRISIS OF THE EIGHTIES AND THE BANKING SUPERVISION**

Many parts of this chapter have been transcribed from the book "History of the Eighties - Lessons for the Future" published by the FDIC in 1997,

### **6.1 - An Overview**

The 1980s and early 1990s were undoubtedly a period of greater stress and turmoil for US financial institutions than any other since the Great Depression. As a consequence, the banking supervision system came under intense scrutiny, and fundamental questions were raised about the effectiveness in anticipating and limiting the number of failures and losses.

Evidence shows that during the 1980-1994 period, 1617 FDIC-insured commercial and saving banks were closed or received FDIC financial assistance. This number was 9.1% of the sum of all banks existing at the end of 1979 plus all banks chartered during the subsequent 15 years (the comparable figure for the preceding 15-year period was 0.3%). The assets of the failed bank were about US\$ 206 billion dollars, equivalent to 9% of total bank assets.

Effective supervision can be achieved in two ways: (1) problems can be recognized early, so that corrective measures can be taken and the bank returned to a healthy condition; (2) supervision can limit losses by closely

monitoring troubled institutions, limiting their incentives to take excessive risks, and ensuring their prompt closure when they become insolvent or when their capital falls below some critical level.

## **6.2 - Examination Staffing and Frequency**

The agencies shifted supervisory philosophy in the early 1980s, which placed more emphasis on off-site analysis and relatively less on on-site examination, had major implications for examination staffing and therefore for the ability to detect problem institutions at early stages. From 1979 through 1984 both FDIC and OCC reduced their examiner resources by almost 20%, from 1,713 to 1,389 (FDIC) and from 2,151 to 1,722 (OCC). The FED's examination capacity remained almost unchanged. State examiner levels, however, declined from approximately 2,496 to 2,201. From 1979 through 1984, overall examiner resources at federal and state levels declined by 14%, from 7,165 to 6,132.

This substantial reduction in staff was consistent with the policies of increased off-site surveillance and with the desire of Carter/Reagan administrations to lessen the size of government. However this process was not a function of a reduced number of banks or assets under supervision by the regulatory agencies.

For the OCC, for example, the number of national banks increased from 4,468 to 4,959, total assets increased from U\$ 1.2 trillion to U\$ 1.6 trillion, and the assets per examiner increased from U\$ 668 million to U\$ 910 million. For the FDIC, the total assets under supervision increased from U\$ 589 billion to U\$ 805 billion, and the assets per examiner increased from U\$ 355 million to U\$ 520 million. For the FED, the total assets under supervision increased from U\$ 387 billion to U\$ 495 billion, and the assets per examiner grew from U\$ 484 million to U\$ 593 million.

In addition to freezes in hiring, high turnover rates among examiners also helped produce shortages in examiner staffs. These turnovers were due in part to the differential pay between the banking agencies and the private sector. After the mid-1980s the agencies started to hire new examiners as the number of problem banks increased from 271 in 1980 to 1,140 in 1985. Thus, during a period of rapidly growing instability in banking with unprecedented number of problem banks, the agencies' examination staff consisted of large number of inexperienced personnel. From 1986 to 1992, for example, approximately half of the supervisory staff at the FDIC consisted of assistant examiners with less than three years' experience, even though the training cycle for newly hired examiners takes three to five years before a new hire can be considered a commissioned examiner.

A consequence of the reduction in examination staff was the increase of the interval between examinations. The total number of examinations declined from a high of 12,267 in 1981 to a low of 8,312 in 1985, representing a drop of more than 30%. Also the mean examination interval in days for all commercial and saving banks increased dramatically from 379 to 609. These intervals were increasing for all CAMEL rating categories. But especially for highly rated institutions: for 1-rated banks, the interval increased from 392 to 845 days; for 2-rated banks, from 396 to 656 days; for 4-rated banks, from 285 to 363 days; for 5-rated banks, from 257 to 313 day; and for 3-rated banks the interval also grew, but not as much.

Considering each agency, the overall examination intervals also increased. For the OCC rose about 45%, from 407 to 604; for the FDIC, 37%, from 460 to 628 days; and for the FED, 27%, from 411 to 520 days.

Another important development was the reduction in examination frequency in the states which had the largest concentration of problem and failed banks producing the great losses to the insurance fund.

## **6.3 - FDICIA and Prompt Corrective Action**

Congress passed FDICIA in 1991 to correct what it perceived as the banking agencies' regulatory forbearance toward undercapitalized banks during the 1980s. FDICIA was designed to limit regulatory forbearance by requiring:

(1) a more timely closure of failing institutions; and,

(2) an earlier intervention in problem banks. These provisions are referred to as "prompt corrective actions" (PCA).

Prompt corrective action specifically mandated certain rules the banking agencies had to follow with respect to the supervision of undercapitalized banks. There were defined five capital categories: "well capitalized", "adequately capitalized", "undercapitalized", "significantly undercapitalized", and "critically undercapitalized". As an institution's capital position declines, the appropriate federal regulator is required to take increasingly stringent actions; for "undercapitalized" institutions, these includes establishing a capital restoration plan and restricting deposit taking, asset growth, dividends, and management fees; for banks that are "critically undercapitalized" for a prescribed period, this includes closing the bank.

The closing of depository institutions is the shared responsibility of both federal and state banking authorities. The OCC has the responsibility for closing national banks, and the state banking departments for closing state-chartered institutions. Since the chartering authority and not the insurer has the authority to declare insolvency, the various agencies may have different incentives leading them to pursue different closure strategies.

The insurer will usually want earlier action, but the chartering agency may have practical reasons to delay closing due to the effects on the local economy or some feeling of allegiance to a bank the agency itself chartered. Charterers are also seen as having some interest in promoting their own segment of the banking industry.

In recent years the US banking system is considered to be very healthy. For example, on December the 31st of 1997, only 14 insured banks were subjected to the PCA. Considering the total assets of these banks, table 11 shows that only 0.1% of the total banking assets belongs to banks under PCA.

Table 11: Assets under PCA for All Insured Banks in December 31, 1997 (\$ billions)

	State Members	National Banks	State Nonmembers	Total	%
Well capitalized	1,198.9	2,769.9	1,090.8	5,059.6	97.4
Adequately capitalized	29.1	77.7	25.3	132.1	2.5
Undercapitalized	0.0	0.0	0.5	0.5	0.0
Significantly undercapitalized	0.0	2.7	0.2	2.9	0.1
Critically undercapitalized	0.0	0.2	0.0	0.2	0.0
Total assets under PCA	0.0	2.9	0.7	3.6	0.1
Total assets	1,228.1	2,850.5	1,116.7	5,195.3	100.0

Source: the FED Board.

(1) data based on the December 31, 1997 "Report of Condition and Income" for all banks in existence on March 13, 1998.

#### 6.4 - The Effectiveness of the CAMEL Rating System During the Crisis

When examination ratings are up-to-date, they generally identify most of the banks that require increased supervisory attention well before the banks actually fail. Of more than 1,600 banks that failed in 1980-94, 36% had CAMEL 1 and 2 ratings two years before failure; 25% had ratings of 3; 31% had ratings of 4; and 8% had

ratings of 5. However this data refers to examination ratings available two years before failure, whereas some of the examinations had actually been conducted more than two years before failure.

Also included in this data are banks that failed for types of reasons that cannot be anticipated well in advance by safety-and-soundness examinations: cross-guarantee failures; failures due to fraud; and failures of affiliates of certain Texas holding companies that were essentially operating branches of the parent institution were tracked outside the CAMEL system, and were resolved through procedures that had much the same effect as cross-guarantees. If we exclude examinations for these banks as well as examinations that are more than one year old, the percentage of failed banks that had CAMEL 1 or 2 ratings two years before failure drops to 16% of the number of failures. In other words, the proportion of failed banks that were not identified as requiring increased scrutiny two years before their failure was 16% rather than the initial figure of 36%.

If we consider just the ratings less than one year old, that is, ratings based on examinations dated between two and three years before failure, the number of CAMEL 1 or 2 rating banks drops from 36% to 26% of the number of failures. This evidence suggests that bank examination ratings provided a more accurate indication of the prospect of failure if the ratings were based on recent examinations. But in the early and middle 1980s many banks were not examined frequently, and the ratings available for them at any point tended to be obsolete. The critical issues, therefore, are the frequency, the use of examinations, and the effectiveness and limitations of CAMEL ratings.

Over the course of the 1980-94 period, the record of CAMEL ratings in anticipating failures improved as the frequency of examinations increased and problems were apparently better identified. From the period 1980-86 to the period 1987-94, the proportion of failed banks that had CAMEL 1 and 2 ratings two years before failure declined from 28% to 12%. Similarly, the proportion of failed banks that had CAMEL 4 and 5 ratings two years before failure rose from 25% to 46%.

## **6.5 - Some Conclusions After the Crisis**

After the crisis, several lessons can be drawn about the performance of bank regulators in the 1980s. The first one is that problems in the operations of depository institutions must be identified in timely fashion and early identification requires continuous and sometimes burdensome monitoring. During the first half of the 1980s either the number of examiners or the frequency of on-site examinations were reduced. The new systems of off-site surveillance were used to help justify reducing the on-site examinations. At the very time the number of troubled banks increased rapidly. Examination forces were rebuilt and the frequency of examinations increased in the second half of the 1980s. As a result they provided increasingly accurate advance warning - not available through other means such as off-site monitoring - of future banking problems.

The second important conclusion is that the availability of financial resources to close insolvent institutions was crucial to the bank regulators' ability to control bank risk and moral hazard problems and to reduce losses to the insurance fund when failure occurred. An example of how the lack of funding can worsen things was the situation of FSLIC that faced the reluctance of the Congress and S&L industry to provide adequate funds. As a result, the FSLIC was unable to close large numbers of insolvent S&Ls, which were allowed to continue operating in the hope that higher-risk investments would pay off.

The treatment of large banks is the third important point risen after the crisis. The regulators when facing a large-bank problem tend to shift the balance between stability and market discipline toward stability. However, protecting uninsured depositors of large failed banks weakens market discipline and exposes regulators to charges of treating small banks unfairly. Imposing losses on uninsured depositors and liquidating a few large banks might have had positive effects on market discipline. On the other hand, the treatment of large banks have been improved. Even profitable and solvent, some large banks engaged in risky activities, which were not sufficiently restrained by bank regulators. In addition a few large banks were allowed to operate with little equity for extended periods before being liquidated. In these cases a more-effective regulatory action could have reduced losses to the insurance fund.

Another important point is the ability of regulators to handle the risk exposure taken by the banks. Banking operations became more complex during the 1980s and deviated dramatically from the traditional loan and deposit-taking model. One example is the increase of off-balance-sheet activity. The principal tool for restraining risk is the capital requirement, however bank capital positions are poor predictors of failure and if the regulatory action is based upon capital position, such action probably will come late to do much good. Imposing restrictions on the banks which are willing to assume a risky position might unnecessarily restrain potentially profitable activities and might also expose the regulators to charges of credit allocation, since they might be restraining banks' efforts to meet rising credit demands in particular sector of the economy. One alternative is to consider raising regulatory capital requirements. In this case the stockholders' stake in the banks would be increased as well as their incentive to enforce conservative policies. However, if capital requirements are set too high, entry into the industry will be discouraged and competition will be weakened.

A quite obvious but nonetheless important point is that the bank regulation can limit the scope and cost of bank failures. However it is unlikely to prevent failures due to systemic causes. Legislation can correct existing structural weaknesses in the banking system. However, if significant economic problems are allowed to develop in the future, bank regulation alone will not be able to prevent a major increase in the number of bank failures.

Finally, the last consideration regards the differences in perspective among the federal agencies. While current regulatory structure of divided regulatory responsibilities is believed to have important advantages, in the early 1980s it may have delayed recognition of the seriousness of the crisis, when the bank failures were the most pressing problem, outweighing such considerations as encouraging innovations in deposit gathering and easing the entry of new institutions into bank markets.

### **CONCLUSION: A COMPARISON WITH BRAZILIAN BANKING SUPERVISION**

The American banking system is referred to as complicated. Greater complexity is a consequence of the bank regulation structure, based upon five federal agencies and fifty state commissions as well. In Brazil, the financial system is regulated by two federal agencies, the Brazilian Central Bank (BCB) and the Brazilian Securities Commission (CVM), both subordinate to the National Monetary Council (CMN).

Among the classical functions, the Brazilian Central Bank is responsible for the regulation and supervision of all Brazilian depository institutions, investment banks and finance companies (SCFI).

Although the US system is considered somewhat inefficient and sometimes is not able to recognize an imminent crisis in a timely manner, the existence of more than one agency sharing the responsibility of regulating the banking system somehow exposes each agency to the monitoring of the others. This fact helps the regulators to improve their procedures besides decreasing the risks of the adoption of a mistaken policy. In other words there is a trade-off between agility and safety. The question is how to keep this balance regarding the specific condition of each market. In the US the trend is toward shrinkage. In fact, there is a real possibility of the OTS being absorbed by the OCC.

The scope of a bank is much more restricted in the US than in Brazil where, there is almost no restriction on branching and on investments that a bank can make especially with regard to bank holding companies. In the US, the banking business is treated as a concession (not formally). The owners must consider the local and the consumer needs and must be involved with banking activities or activities closely related to it. These restrictions prevent failure of a bank owned by a conglomerate due to the failure of a nonbank subsidiary and make it difficult for the effects of a bank failure to spread. However, in the US as well as in Brazil, a large bank failure will be reflected throughout the financial system, probably with worse effects in the Brazilian system due to its greater concentration.

Regarding the banking supervision the major procedures are similar. Both systems are based on off-site and on-site examinations, and enforcement actions. Despite the fact that the Brazilian supervision counts on a computerized system and a rating system (CAREL), the off-site surveillance is more developed in the US in response to a broader market among the financial institutions. In Brazil, due to its extremely concentrated

banking system, more emphasis is put on the on-site examinations which can be burdensome to banks but provide quite up-to-date information about the financial institution which is particularly important in crisis time.

As well as the US, which faced a banking crisis during the eighties, Brazil's banking system had a similar crisis during the early nineties. Many characteristics were common in both cases such as the poor quality of bank assets, frauds, economic recession affecting bank performances, and the shrinkage of examiner staff, among others. However one aspect was quite different: the availability of immediate funds in order to restructure the system. The US crisis started during the very earlier eighties and particularly affected the thrift institutions. However, 1987 Congress passed the CEBA (see chapter 5) which provided for recapitalizing the FSLIC. The reluctance of the Congress to provide these funds allowed a large number of insolvent institutions to continue operating, with further insurance fund losses. Diversely, in Brazil, right after the failure of the first large institutions the Brazilian government implemented the "National Financial System Restructuring Program" (PROER) in order to provide sufficient funds to close insolvent institutions or to prepare them to be acquired by other banks.

Despite this prompt action, the Brazilian financial system did not count on any deposit insurance fund, which probably increased the total amount spent by the government to take control of the situation. Only in 1996 was the Credit Guarantee Fund (FGC) created to guarantee the account-holder credits in case of bank failures.

Finally, regarding bank legislation, the American legislation is broader than the Brazilian one is. In other words, the Brazilian banking legislation is more detailed. This enables the US federal agencies to better take advantage of the discretionary power in following the guidelines set by the laws. The enforcement is not dependent on bringing a suit against the allegedly irregular party and the federal agency can implement by itself any of the formal actions after a detailed analysis of the facts. The appeal, if this is the case, has to be conducted in the Courts.

These characteristics increase the responsibility of the supervisor but, certainly, a prompt and strict enforcement facilitates the task of disciplining the banking system, which is fundamental to achieving a safe and sound financial market.

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