CAPITAL ADEQUACY OF COMMERCIAL BANKS IN LEBANON

7/4/91

A Research Topic

Presented to Business Division

Beirut University College

In Partial Fulfillments

of the Requirements for the Degree

Master of Science in Business

Management

By

Mirvat K. Salam

July, 1991

BEIRUT UNIVERSITY COLLEGE
P.O. BOX 98 13-5053
BEIRUT, LEBANON

APPROVAL OF RESEARCH TOPIC

CANDIDATE : **Mirvat K. Salam** DATE : **July,1991**

DEGREE : **Master in Science in Business Management .**

ADVISOR : **DR. Salaheddine Dabbagh**

TITLE OF THE RESEARCH TOPIC : **CAPITAL ADEQUACY OF COMMERCIAL BANKS IN LEBANON**

The following Professors nominated to serve as the advisor of the above candidate have approved her research work :

ADVISOR **DR. Salaheddine Dabbagh**

Signatures Redacted

READER **DR. Nuhad Pasha**

Signatures Redacted

ACKNOWLEDGEMENT

I would like to express my gratitude to all those who contributed in the completion of this research and particularly to my advisors, Dr. Salaheddine Dabbagh for his assistance, supervision and guidance , and Dr. Nuhad Pasha who exerted thankful efforts as well . Special thanks to all officials at the Central Bank of Lebanon who have provided valuable comments and information amoung whom I wish to mention, Mr. Ghaleb Abou Mosleh, Mr. Elie Noujaim Mr. Atef Rawas, and Dr. Hussien Rifaat . I am most grateful to my brother Mohammad, for the valuable information he provided .

Finally, I would like to express my appreciation to Iman Abou Hassan , Wafaa Sabsaby, Moufida Ballout and Amal Chraif for their assistance and devotion .

Mirvat K. Salam

I dedicate this research to my parents
for their continual support .

Contents

CHAPTER THREE

CHAPTER FOUR

Page

CHAPTER FIVE

CHAPTER ONE

Development of the Banking Sector in Lebanon

I - Historical Background .

A - The Monetary System .

The Lebanese monetary system experienced several developments since the French manadate . At the end of the First World War , the monetary system in Syria and Lebanon was dominated by the Ottoman Empire (Turkish banknotes and coins).When the Allies occupied Syria and Lebanon in 1918, the Turkish currency was demonetised and substituted by the use of the Egyptian pound and replaced by a new Lebanese-Syrian currency based on the French Franc . The right of note-issue was granted to a newly incorporated Anglo - French bank , "La Banque de Syrie" , which replaced the local agencies of the Ottoman Bank . The Lebanese-Syrian pound was divisible into 100 piasters and equivalent to 20 French Francs . In 23 January 1924 , an agreement was signed between Syria and Lebanon on the one hand and Banque de Syrie on the other , which granted the bank for a period of fifteen years the exclusive privilege of issuing notes , that were redeemable in checks on Paris (1) .

1) - Said , Himadeh, **Monetary and Banking System of Syria,** Beirut, American Press, 1935 , p.23.

It was agreed that the Banque de Syrie would function as an official bank of the states under French manadate and was accordingly given the name of Banque de Syrie et du Grand Liban . (Its name was changed later to Banque de Syrie et Liban , BSL).

In 1937 the agreement was extended for another 25 years as from 1939 and hence would expire in 1964 .

French and English shareholders owned 83% while 15% were owned by Syrians and Lebanese (2) . In 1943 , Lebanon gained its independence .

Since the Lebanese-Syrian pound was pegged to the French Franc , it fluctuated with it . The Lebanese and Syrian suffered huge losses and opposed its use . The French government subsequently invited the Lebanese and the Syrian governments to Paris in 1944 for negotiations . In the meeting, they agreed to seperate the Lebanese-Syrian currency from the French exchange standard . Moreover, the French government linked the Lebanese-Syrian currency directly with the Sterling Pound (3).

(2) - *Ibid* , p.26.

(3) - Abdul-Amir, Badrud-Din, **The Bank of Lebanon: Centeral Banking in a Financial Center and Entrepot**, London , Frances Pinter, 1984 , p.10.

The French authorities agreed to compensate for the any loss caused by devaluation of the French Franc . However, after several devaluations of the French Franc, during the periods from 1945 till 1949 ; the French government found itself in a different position and was not capable of bearing any loss differential *vis-a-vis* the Lebanese-Syrian pound which is backed by the Sterling and, thus, the French government abolished the 1944 agreement .

In 1948 , the monetary unity of the Lebanese-Syrian currency broke and Lebanon issued a monetary law in 1949 declaring the sovereignty of its currency . The Lebanese pound rate was equivalent to 405.512 milligrams of pure gold , as declared by the IMF (4) .

Eventually , Lebanon was not tight up anymore with the French Franc starting from 15 November 1949 and the Lebanese pound was not allowed any more to be exchanged freely in France . In addition to that, the Lebanese pound was considered a foreign currency and, hence, was subject to the control of the French Exchange office in Paris . Although the unity between the Lebanese-Syrian pound was broken , the right of issuing the Lebanese pound remained in the hands of the BSL.

This situation remained until 1963 when the Lebanese government issued the Code of Money and Credit which stipulated in its first part the rules and regulations for the issuing of the Lebanese pound by the Central Bank of Lebanon .

(4) - *Ibid*, p.13.

B - The Banking System

The banking system is one of the many institutions that impinge on the economy and effects its performance for better or worse . The banking system not only controls deposit accounts and national savings accounts but the money supply of the nation as well (5). The growth of the Lebanese banking sector is recent . Its history extends over a few decades only . One can , however, trace the existence of banks to the second half of the nineteenth Century . The most important foreign bank was the Imperial Ottoman Bank founded in 1856 . This Bank was incorporated by Royal Charter which had British and French capital (6). It was recognized by the Turkish government as the state bank . The main activity of the Imperial Ottoman Bank was to issue currency and to finance foregin trade . It had branches throughout the Ottoman Empire, but the most important one was the Beirut branch . Other foreign banks which operated in Beirut were the Deutsche Palestina , the Deutsche Orient Bank and the Banque de Salonique .

(5) - Paul,A.Samuelson,**Economics,**Tenth Edition, Singapora, McGraw-Hill, 1976. p.292.
(6) - Said, Himadeh, *op.cit.,* p.28.

The first two were German established respectively in 1889 and 1906 (7). While the latter was established in 1888 (8). The foreign banks financed foreign trade , leaving domestic trade to the few small local banks and discount houses . Credits to farmers and industrialists were practically non-existent. When in needs of funds, the farmers had to resort to money lenders who charged very high interest rates, sometimes exceeding 50 percent per annum (9).

Informaion and data pertaining to the activities of local banks and discount houses are not reliable; it was reported that their main customers were merchants - presumably for internal trade - and landowners .

When the First World War broke out , the Lebanese banking sector was sitll in its embroyonic stage . With the defeat of Turkey and Germany , practically all foreign banks in Lebanon had to close their doors . A fresh start had to be made and the initiative now came from France . Banque Syrie et du Liban , a French institution, took over functions of the former Imperial Ottoman Bank in 1919 while other French banking institutions established branches in Lebanon.

(7) - *Ibid,* p.30.
(8) - *Ibid,* P.30.
(9) - *Ibid,* p.31.

The BSL provided monetary and banking services to the government of Syrie and Lebanon . It continued the activity of note-issue and also was confirmed as a sole custodain of government funds . Banks from other countires followed the French example and shared a thriving commercial banking business . Most important was Credit Foncier d'Algerie et du Tunisie, specialised in mortgage credit . Lebanese banks started to emerge in the late twenties and one Italian bank was established too (10).

After the Second World War , the Lebanese sector witnessed a remarkable growth . The number of Lebanese commercial banks reached eleven banks in 1950 , of which five were Lebanese, two French, and the others were Iraqi,Jordainan, Italian, and British . By the end of 1964, the number increased to seventy nine banks (11). Their main functions were in the form of short-term investmens which are available in the form of self-liquidating loans such as discounts, advances on securities and over drafts for less than one year . These loans were granted against collaterals such as personal guarantees or real estate. It should be mentioned that during this period the Lebanese capital market was inefficient and undeveloped .

(10) - A. Badrud-Din, *op.cit.*, p.23
(11) - *Ibid* , p23.

Moreover, four non-commercial banks were established. The Societe de Credit Agricole et Industriel du Liban (SCAIL) and Bank de Credit Agricole Industriel et Foncier (BCAIF) . Both were Lebanese and gave medium and long-term loans against mortgages and real property. The other two non-commercial banks were French companies. The compagnie Mediterraneene de Placement et de Gestion was an investement bank, and the Monts de Piete Egyptiens which gave advances on the security of movable goods and merchandise . Only the BACIF still operates , where as the other three banks were liquidated in 1964 .

II - Reasons for the Development of the Banking Sector .

The Lebanese banking sector has grown out of an exceptional environment . Many factors accounted for this prodigious growth ; namely, the free economic system (Laissez-faire), the geographical location , the abundance of capital and the growing confidence of the pepole (12) .

(12) - Antoine , E. Asseily, **Central Banking in Lebanon** Beirut , 1967, p.31 .

A - Free Economic System

Banking in Lebanon was almost unregulated . The business of banking was considered an act of commerce where the Code de Commerce was applied to banks instead of a special commercial banking law . No rules governed minimum reserves ratios and banks were not even asked to produce regular annual reports or balance sheets . This freedom certainly made it much easier for nationals and foreigners to establish Commercial banks in Lebanon .
Nevertheless, with a free exchange system, free movement of funds, liberal taxation and a free enterprise system of the economy have made banking and financial activity in Lebanon one of the most flexible and dynamic banking systems in the Middle East region .

B - Geographical Location

Moreover, Lebanon was the doorway to the Middle East . The commercial trade with the West and the Arab World was channelled through Lebanon . Its strategic position in the Middle East with its large customs - free zone, have combined to make it a crossroad for commerce and tourisim (13).

(13) - A. Badrud-Din, *op.cit.*, p.3 .

C - Abundance of Capital

An abundance flow of funds was attracted to Lebanese banking sector especially from Lebanese emigrants who were repatriating their capital from West Africa and Latin America . During that period Lebanon enjoyed a relative economic and political stability unlike the other surrounding Arab countries . These countries were enduring nationalisation, confiscation, military revolts, controlled exchange system and govrenment restrictions. Thus, Lebanon was considered as a regional financial center, particularly from the oil-producing countries.

III - Regulation of the Banking Sector

The govenment, in order to maintain this trend contributed directly to the evolution of the banking system by introducing the law on Bank Secrecy in 1956 and the Joint Account in 1961 .

A - Law on Banking Secrecy

The law on banking secrecy dated 3 September 1956 contributed to attracting foreign deposits to Lebanon especially from the oil-rich states of the Arab Gulf.

This law which was inspired by the Swiss Banking Secrecy Law of 1934, gave more security to the client than the Swiss Law . The objective of the law was not to interfere or regulate the banking industry, but rather to fortify the position of Lebanon as a refuge of funds .

The bank Secrecy Law provided protection and strict discretion concerning the client's financial position . Information obtained from a client must be kept confidential even from his parents, spouse, children, tax authorities and from legal, civil,and military authorities.(14) The bank's employer, agents as well as members of the banking control commission are personally subject to the duty of secrecy in maintaining a full discreation with respect to the client's financial transactions . Violations of banking secrecy is punishable by imprisonment from three months till one year . But if the act has been committed by negligence, the penalty would be disciplinary punishment .

The bank is allowed to disclose information upon the approval of the client . Also, when the legal authority declares the bankruptcy of a client, disclosure becomes permissible . Moreover, the bank is authorized to disclose financial information when there is a dispute between the client and the bank .

(14) - صفا البروفسور بيار ، سلسلة محاضرات في القانون المصرفي المقارن ، بيروت ، جمعية المصارف في لبنان ، معهد الدروس القضائية ، شباط ١٩٧٤.

B - Joint Accounts

The law authorizing joint accounts was issued on 19 December 1961, it permitted commercial banks to open an account to be owned jointly and operated by more than person . The joint account may be held by two or more persons and may be operated by the signature of one of the joint owners . Upon the death of a joint owner, the other co. owners have the right to withdraw the whole account . The heirs of the deceased person can have no access to the involved account nor the bank is allowed to give any information pertaining thereto . The joint account goes to the remaining survivors (15) .

C - The Code of money and Credit

Banking activity is regarded as a public function or service and, hence, should be governed and regulated by the government to protect and safeguard the depositors and the economy as a whole .

In 1959 , the government took a timid step and constituted the Money and Credit Council as a special board within the Ministry of Finance .

(15) - The law on Joint Accounts, 19, December , 1961 .

The mission of the Council was not aimed at regulation but rather at studying the monetary and banking system, collecting statistics and presenting recommendations and legislation for organising the banking profession to the Ministry of Finance . The Council elaborated the Code of Money and Credit which was issued on the first of August 1963 . It emphasized three basic issues; the Lebanese currency, the Central Bank, and the regulation of the banking profession . The Code of Money and Credit is divided into six parts :

- Currency
- Central Bank
- Banking regulations
- Sanctions
- Transitional provisions of the banking operations .
- Miscellaneous and final provisions .

1 - Currency (Articles 1-11; 113-116; 225-229)

It restated the Lebanese pound as the unit of the Lebanese Currency . It abandoned the gold parity and provided instead for a new and more realistic parity in agreement with the IMF . Other articles regulated the divisions and fractional denominations of the Lebanese pound and granted the right of note-issuing to the proposed central bank .

2 - The Central Bank (Articles 12-120)

The Bank of Lebanon is state-owned and the state should subscribe all the capital, appoint the Governor and Deputy Governors, and share in profits .

Although the Bank of Lebanon is state-owned, it is not subordinated to the government . The Bank (Bank of Lebanon) is an autonomous authority engaging in business with third parties . In light of the Code of Money and Credit, the rules laid down for the Bank consisted of seven sections :

a) The legal status (Articles 12-16).

b) Organisation (Articles 17-40).

c) Supervision (Articles 41-46).

d) Functions (Articles 47-80).

e) Operations (Articles 81-111) .

f) Financial provisions (Articles 112-117).

g) Exemptions and privileges (Articles 118-120).

3 - Banking Regulations (Articles 121-191)

It is divided into three parts ;

1 - Banking obligations .
2 - Business related to the banking business .
3 - Auditors .

The Central Bank is empowered to regulate the commercial banks through issuing different rules and laws concerning the bank's :

- entry and branching ;
- minimum capital requirement ;
- regular annaul reports; and
- minimum reserve ratio .

The Central bank regulates the banking activity of financial institutions which are also subject to disciplnary sanctions .

4 - Sanctions (Articles 192-210)

All banks must follow and abide by the rules and regulations of the Code of Money and Credit .
Violations of the regulatory obligations are punishable by disciplinary penalities

5 - Transitional Provisions of the Banking Operations .
(Articles 211-222) .

6 - Miscellaneous and Final Provisions
(Articles 223-230) .

CHAPTER TWO

The Importance of Capital in Commercial Banks.

The period since late 1983 has been characterized by continuing strains in the banking industry. A large number of Lebanese commercial banks experienced a sharp deterioration in their ability to absorb financial shocks resulting from unanticipated economic and structural changes. "Instability in the macroeconomy arising from wars, technological advancement and swings in investment expenditures is seen to be a prime source of shocks to the financial system " (1).

A special importance is attached to the integrity and stability of the banking system. There has always been a percieved need for special protection for depositors, in order to instil confidence, to avoid a run on a bank and to safeguard the depostitors if calamity occur. The failure of even a single bank causes nervousness. The existence of a system of prudential regulation applied by the Central Bank carries with it, in the public mind, at least an assurance that depositors will be looked after and that banks will not be allowed to fail .

(1) - Eichengreen, B. and Portes, R. **The Anatomy of Financial Crises,** Institute for International Economic Studies, University of Stockholm, Seminar Papers Nº 357, 1978 .

There were several banking failures in 1989 necessitating rescue operations to maintain confidence in the banking sector in Lebanon (2).

Capital adequacy regulation along with liquidity are adopted by regulators to ensure that banks can repay their depositors. These regulatory devices are necessary of the inherent instability of the banking industry. They are concerned in various ways with reducing the chances of financial crises. Indeed, they are the spinal cord for controlling and monitoring the soundness of the banking system.

In assessing the total risks of a bank porfolio, capital plays a critical role through offsetting losses. A healthy portfolio depends upon the proportional combination of assets, liabilities, and capital. Although depository institutions rely heavily on deposits and other liabilities, they could not operate without capital. As H. Hempel said, "The ultimate strength of a bank lies in its capital" (3).

(2)- Al-Mashrek Bank, the Arab Lebanese Bank, Prosperity Bank, Mebco Bank, Euromed Bank, and Banque Nasr Libano-Africaine.

(3)- Hempel,**H.Management Policies for Commercial Banks**, New York, Macmillan, 1983, p.69

Many controversies persist with respect to the defintition of bank capital. The question as to what constitutes capital and what role debt instruments play in the capital base has long been debated .

I - Bank's Capital

One of the major issues in banking for supervisors, bank managers, shareholders and depositors is capital.

After witnessing in Lebanon a secular decline in the level of bank capital after 1982, the need to strengthen capital resources has become a major concern for both supervisors and bankers themselves . The size of the Lebanese banks' capital in Lebanese pound (see Table and Figure Nº1) has become insignificant compared to the amount of capital in US Dollar (see Table and Figure Nº 2) due to the deterioration of Lebanese pound from L.L 5.49/$ by the end of 1983 to L.L 842/$ by the end of 1990 . In Comparison with other banks' capital such as, with the United States, Europe or even the Arab countries, Lebanese bank capital seems to be negligible (see Table and Figures Nº 3) .

A - Defintion of capital

Bank capital represents the funds invested in the bank by the owners. The minimum capital requirement is set by the banking law as a condition . The funds may be augmented from the sale of shares or from the retention of earnings. In Lebanon, before 1974 the minimum capital requirement for existing banks were L.L. 5 million. After 1977, existing banks were required to have paid-up capital of L.L. 15 million, of wich L.L. 7.5 million will be kept in the form of blocked interest free deposit with the Lebanese Treasury. In 1989, existing banks were required to have a minimum capital for head office of L.L. 200 million and L.L. 50 million for each branch (4) . In march 1991, the Central Bank issued circular Nº 1013 specifying that the bank capital for the head office should be increased to L.L. one billion and L.L. 100 million for each branch . Currently, Central Bank of Lebanon do not grant any more new bank licences, because the Lebanese market became "overbanked".

B - Elements of Bank Capital

Most Lebanese banks are family-owned, they all have the form of a corporation (SAL) . The majority of Lebanese bank capital, if not all, is in the form of equity funds.

Equity funds represent the owners' claims against the bank. Moreover, it carries no obligation for repayment and are available to absorb losses.

(4) - Central Bank of Lebanon, Circular Nº 863 .

Equity funds are the permanent commitment to the bank. However, there are other means to raise capital, which were not applied in Lebanon until recently, one of which is debt capital. Debt capital, which has increased in importance over the past decade in most of the developed countries, took the form of subordinated loans. Subordinated loans place the lender's claim against the bank behind the claims of the creditors. This criterion was unused in Lebanon until the Central Bank issued Circular Nº 834 on September 30, 1988 based on Article 177 of the Code of Money and Credit. The article states that, " in the regulations and directives which it shall establish for the inforcement of the present law, the Central Bank shall accurately define the meaning of the terms "liquid assets", "liquidity", " assets at call", "short term commitments", "own funds or capital items", "freezing",etc...

Accordingly, banks were permitted to support their capital through long term subordinated loans with minimum maturity of five years. Debt service should be deducted from net profit upon approval of the Banking Control Commission. Such debt is obviously not available to absorb losses in the same way as equity , but it does ultimately stand between depositors and the disappearance of their funds, forming another line of defence which must be sacrified before deposits are at risk. It may be used to finance fixed assets and within prudent limits it can provide a gearing element in relation to bank's assets and liabilities . However, debt capital cannot perform all the functions of capital .

It is not permanently available . It usually carries contractual servicing obligations, and it cannot be used to meet current losses of an on-going business.

According to the Basle Accord and the European Community, capital is divided into two parts : core capital (as Tier 1) and supplementary capital (as Tier 2) (5).

At least 50 percent of the capital base must consist of core element comprised of equity capital and published reserves. Suplementary capital (subordinated loans) will be admitted into tier 2 up to an amount equal to that of core capital .

Another way to raise capital which the Central Bank of Lebanon has suggested recently incase of capital loss was pledged capital . This phenomenon has been applied to Transorient Bank due to embezzlement by one of the bank's staff. The Central Bank requested to raise the bank marginal capital so as to absorb the incurred losses through a pledeged capital . Each shareholder had to put an additional amount in the form of blocked interest free deposit with the Central Bank , until the bank resources are restorted again .

One of the major components of bank capital as measured by the US Federal Bank Regulatory Agencies is mandatory convertible instruments .Mandatory convertible instruments

(5) - see Appendix A .

are the debt issues that mandate conversion to common or perpetual preferred stock at some future date . They must meet the following conditions to be included in primary capital :

1 - The securities must mature (convert to common or preferred stock) in 12 years or less .

2- The aggregate amount of mandatory convertible securities counted as primary capital may not exceed 20% of primary capital.

3 - The issuer may redeem the securities before maturity only with the proceeds of the sale of common or perpetual perferred stock .

4 - The holder of the security cannot accelerate the payment of principal except in the event of bankruptcy, insolvency or reorganization .

5 - The security must be subordinated in right of payment to all senior indebtedness of the issuer .

However, if we include the mandatory convertible instruments as a supplementary capital in the components of bank capital in Lebanon, we would encourage debt capital, and inturn the bank capital will be increased and will be able to protect the depositors and to face future contengencies . Nevertheless, for the case in Lebanon, maturity redemption should not exceed five years , due to the unexpectancy conditions pertaining in Lebanon .Moreover these instruments may find difficulty in application because most Lebanese banks are family-owend and resist new shares issues so as not to lose power .

C - The Role of Bank Capital

The basic role of capital in banking does not vary from country to country nor has it changed from decade to decade. In Banking, no less than in other business entreprises, survival and growth depend on capital resources and their efficient use. There are two basic functions of bank capital which are :

1 - Protection .
2 - Enchancing the public image

1 - Protection :

A primary role of bank capital, that is not fundamentally different from the function of capital in non-financial organisation, is to provide a cushion against unanticipated losses that cannot be absorbed by currentearnings (6) . Bank capital is needed to protect against various forms of risk that might affect a bank's ability to service its liabilities in the face of fluctuating earnings and changes in the value of assets . Capital provides as well , a buffer in case of fluctuating earnings, so that dividends payments can be maintained .

Generally, adequate capital provides the bank with protection against loan and security losses and, hence, it may reduce the possibility of insolvency and failure. According to J. Haslem, the purpose of capital is "to ensure viability in the face of loss arising from inevitable business and political fluctuations and uncertainty , particularly in an inflationary climate" (7).

2 -Enhancing the public image :

Banks depend to a critical extent upon public confidence. Bank capital is used to protect the depositors and

6) - T. Black, and D. Daniel, **Money and Banking,** Second Edition, Plano, Texas, Business Publications, 1985, p.98.

7) - John, Haslem, **Commercial Bank Management : Text and Readings**, Second Edition, New York, Prentice Hall, 1985. p,44.

safeguard the banking sector through instilling confidence in the bank and thereby, avoiding bank "run". It is generally recognized that the overcaptitalization of a bank is neither a perfect indicator for the health of bank nor does it constitute a sufficient condition to insure maintanenace of confidence by depositors and creditors. However, it represents, no doubt, a major element in shaping their perception of the bank soundness. Capital is in practice, the principle yardstick against which the market place assesses a bank's capacity to withstand adverse changes and to manage the risks incurred in the course of business. Consequently in Lebanon, with the increase in the number of bank failures, the market's view of a bank's capital has aquired greater importance, in that it has become one basic reference for classifying the bank's standing *vis-a-vis* its competitors in market in which it operates.

It is difficult to arrive at or measure the correct capital requirements for a particular bank. In the United States, however, the minimum capital requirement for national banks vary with the size of the city (i.e. population) in which the bank is located (8).

Due to the importance of banks' capital, regulators are empowered to impose standards on the required level of capital, such as the composition of capital and its structure and the methods and techniques to be used for meauuring capital.

(8) - T. Black, and D. Daniel, *op.cit*, p.92.

Capital is a crucial element in conducting banking activities. Capital could have a major influence on the size of banking activities in the following areas :

1 - Credits granted to the board of directors should not exceed 25% of own funds (9).

2 - Investments in real estates, fixed assets and equipments should not exceed bank's own funds (10).

3 - Credit facilities granted to one person should not exceed 15% of own funds plus 2% of deposits however, a total not exceeding 30% of own funds (11) .

4 - Positions held in foreign currencies should not exceed 15% of the capital (12) .

However, any additional increase in capital may be 100% carried in foreign currencies but not for trading purposes (13) .

(9) - Article 152 of the Code of Money and Credit
(10) - Article 153 of the Code of Money and Credit .
(11) - Central Bank of Lebanon, Circular Nº108.
(12) - Central Bank of Lebanon, Circular Nº 504 and 538 .
(13) - Central Bank of Lebanon, Circular Nº 566 .

Bankers and sharehorlders tend to emphsize the need to earn highest rate of return on invested capital. They believe that raising additional capital is costly, due to the fact that capital is expensive and in finite supply. On the other hand, regulators tend to maintain a high level of capital based on the fact that capital is risk-offsetting and cover unanticipated losses and face future contengencies.They believe that the greater the initial capital and the more is added from earnings or new investment the less is the danger of insolvency .

However, I. Ayoubi in her research project stated that "a bank is said to be solvent if its capital are considered to be adequate" (14).

This is not always true. A bank may be considered overcapitalized while its portfolio of assets are illiquid and risky. We do not deny the role of capital in supporting solvency, but it is not always correct to state that the greater the bank's capital is, the better its position. In fact, the danger of insolvency falls rapidly as capital is increased but after a point additional capital has only a minor effect (15). Solvency depends on the quality of assets compared to the adequate level of capital funds plus efficient management.

(14) - I . Ayoubi, **Capital Adequacy of Lebanese Banks,** MMB project, American Universit of Beirut, 1990,p.6.

(15) - Sherman J. Maisel, **Risk and Capital Adequacy in Commercial Banks**, Chicago, the University of Chicago Press, 1986 .

TABLE NO. 1

TOTAL CAPITAL

OF LEBANESE COMMERCIAL BANKS 1974 - 1990

IN MILLIONS OF L.L

PERIOD	TOTAL CAPITAL
1974	496
1975	551
1976	583
1977	620
1978	683
1979	878
1980	1 180
1981	1 668
1982	2 162
1983	2 978
1984	3 384
1985	3 783
1986	4 403
1987	10 839
1988	7 358
1989	15 277
1990	33 380

SOURCE : Central Bank of Lebanon, Bulletin Trimestriel, Various Issues.

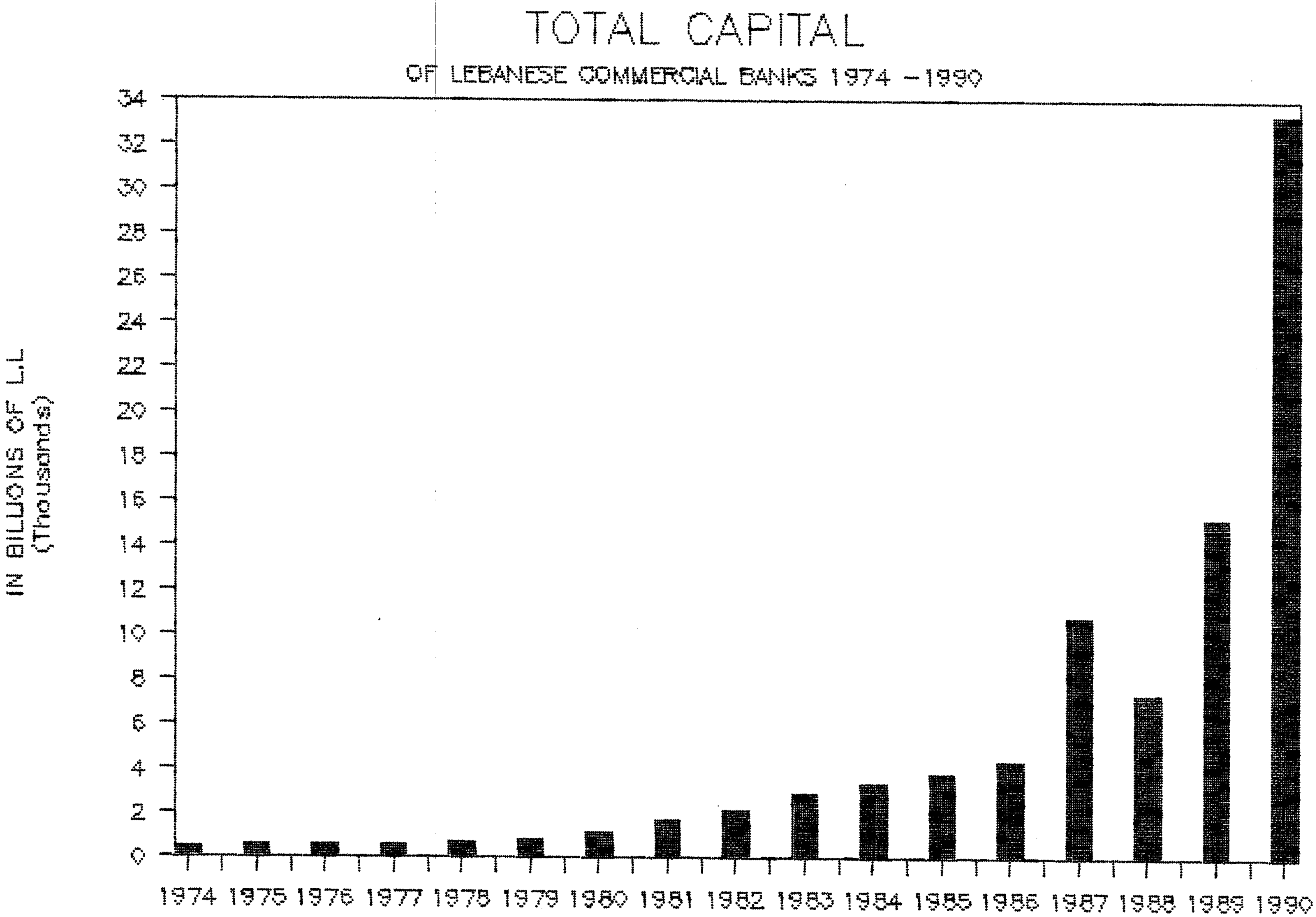
TOTAL CAPITAL
OF LEBANESE COMMERCIAL BANKS 1974 - 1990
IN BILLIONS OF L.L
(Thousands)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990

FIGURE NO. 1

TABLE NO. 2

TOTAL CAPITAL

OF LEBANESE COMMERCIAL BANKS 1974 - 1990

IN MILLIONS OF US DOLLAR

PERIOD	TOTAL CAPITAL
1974	164.757
1975	226.749
1976	198.976
1977	206.666
1978	227.288
1979	269.532
1980	323.509
1981	361.822
1982	567.454
1983	542.441
1984	380.653
1985	209.005
1986	50.609
1987	23.822
1988	13.883
1989	30.252
1990	39.644

SOURCE : Central Bank of Lebanon, Bulletin Trimestriel, Various Issues.

TOTAL CAPITAL

OF LEBANESE COMMERCIAL BANKS 1974-1990

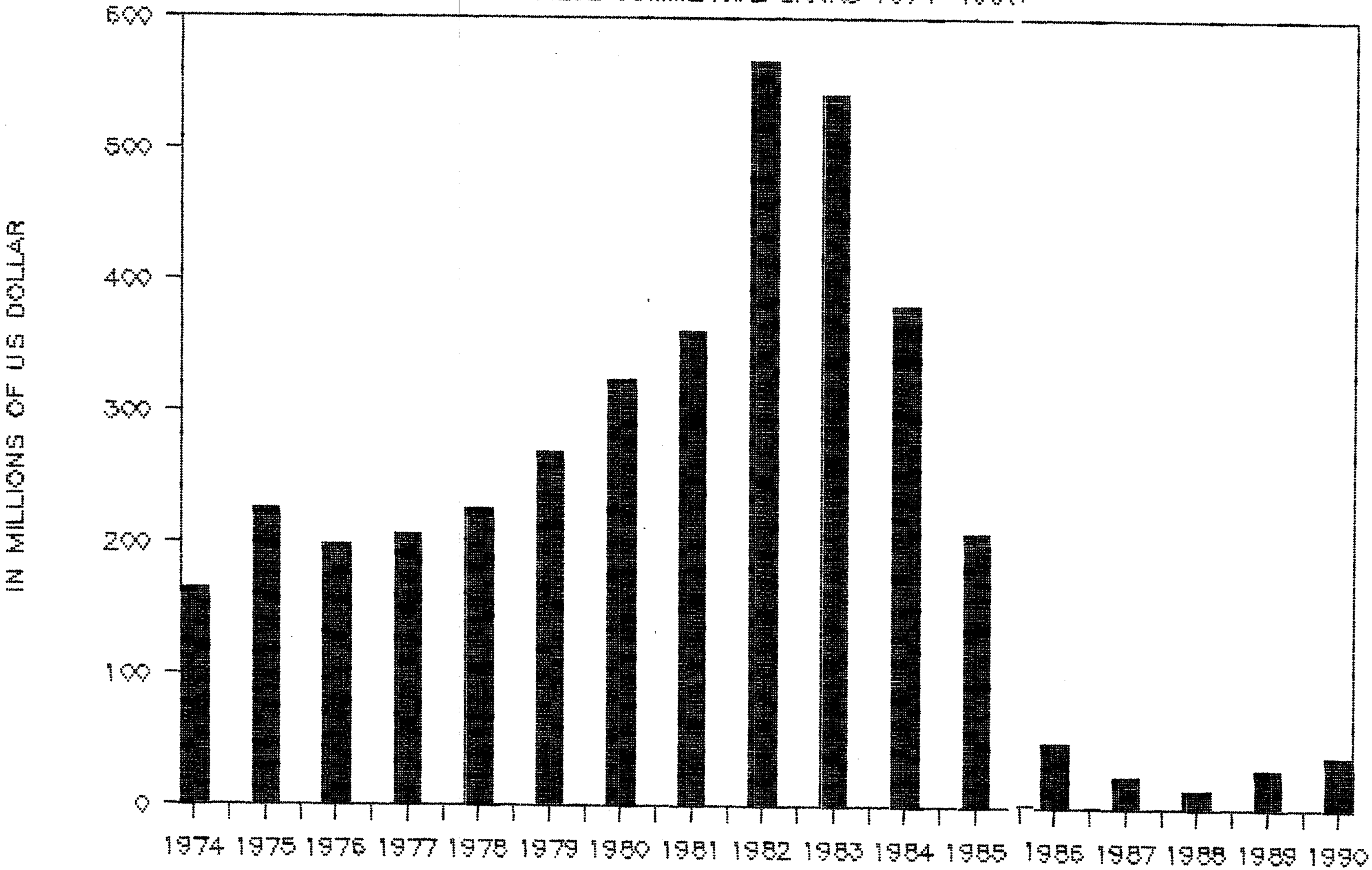

FIGURE NO. 2

TABLE NO. 3

THE AVERAGE BANK CAPITAL
IN SELECTED CONTINENTS AND COUNTRIES
1989
IN MILLIONS OF US DOLLAR

	AVERAGE CAPITAL
UNITED STATES of AMERICA	645.32
EUROPE *	741.14
THE ARAB COUNTRIES **	312.56
LEBANON	0.393

SOURCE : - TOP 1000 - By Country, The Banker, September, 1990, p.138
- TOP 500 European - By Country, The Banker, October, 1990, p.28
- TOP 100 Arab Financial Institiutions - By Country, The Banker, November, 1990, p.87

* Europe Countries Include :

Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Liechtenstien, Luxembourg, Netherlands, Norway, Purtugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Yuogoslavia.

** Arab Countries Include :

Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Libya, Morroco, Oman, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates.

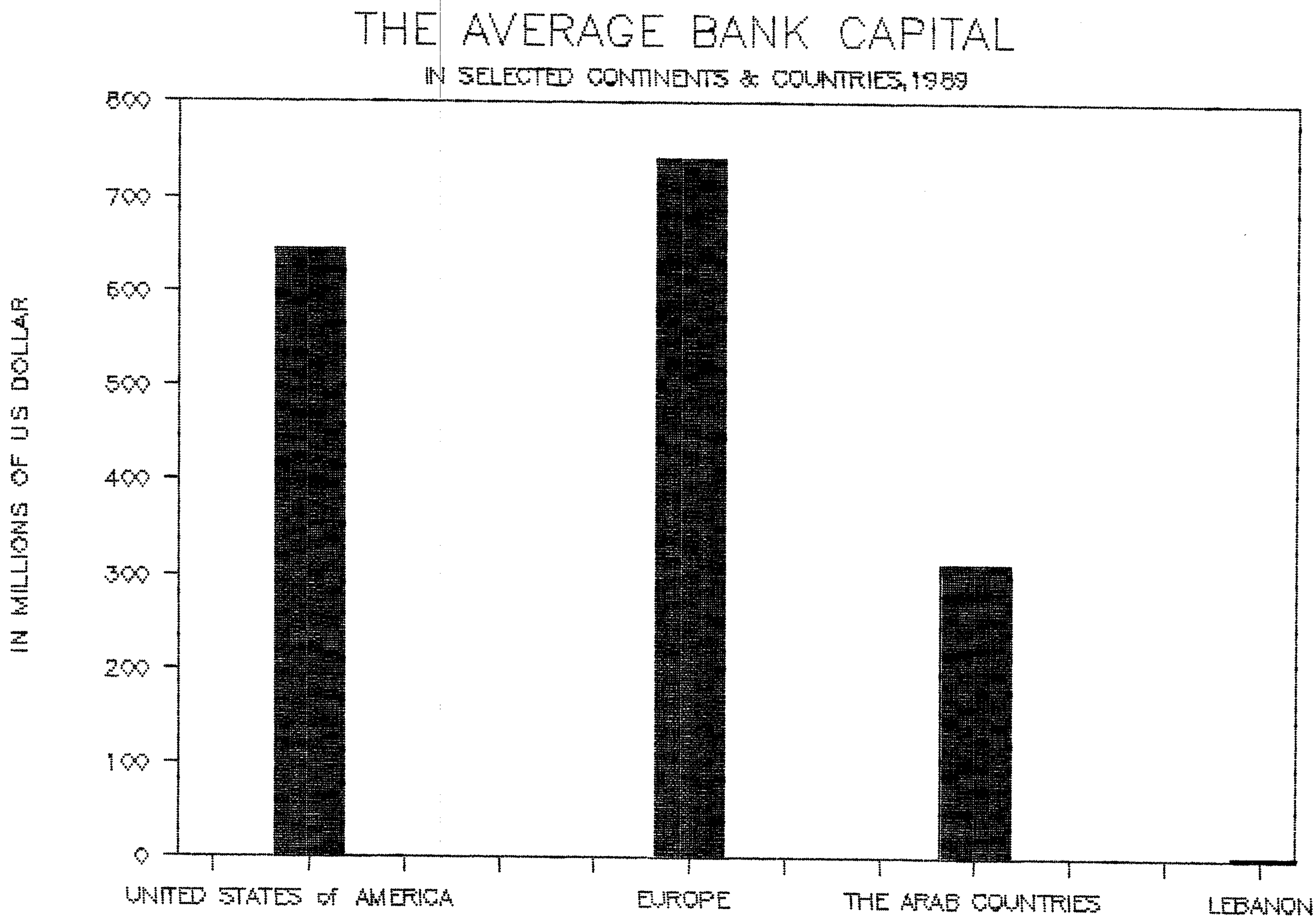
THE AVERAGE BANK CAPITAL
IN SELECTED CONTINENTS & COUNTRIES,1989
IN MILLIONS OF US DOLLAR
800
700
600
500
400
300
200
100
0
UNITED STATES of AMERICA
EUROPE
THE ARAB COUNTRIES
LEBANON

FIGURE NO. 3

CHAPTER THREE

Capital Adequacy and Solvency of Commercial Banks in Lebanon

Recently, and due to the failure of some banks, the safety of commercial banks has been of concern to depositors, supervisory and regulatory authorities and stockholders . They focused their attention on the solvency of banks . The number of failures and the amount of losses occuring in commercial banks are considerably great . Although it is difficult to identify exactly the causes of bank failures, the history of bank failures indicates that deteriorating economic conditions, unsafe and unsound lending practices, inefficient management and fraud contributed essentially to this effect .

Subsequently, commercial banks in Lebanon sustained severe problems regarding their capital adequacy and solvency . Capital adequacy and solvency of the banking sector in Lebanon shall be discussed in more details in this chapter using statistical measures .

I- Capital Adequacy

According to Peter Cooke, former president of Bank of England, "there can be no dogma about capital adequacy . It is therfore an area, *par excellence*, where supervisors have to play a role in setting standards to fill what could otherwise be a vacuum " (1).

Even though the concept of capital adequacy is easily definable in terms of the primary function of bank capital, to perform as a cushion for the absorption of unanticipated losses, its translation into practical supervisory terms is surrounded with difficulties due to an inevitable lack of precision in the assessment of the quality and size of the risks to be protected by the capital base . " If the major purpose of bank capital is to protect depositors, then the amount of capital a bank needs is a function of the risk to which depositors' funds are subject " (2) .

(1) - Edward P.M. Gardner, **UK Banking Supervision, Evoultion, Practice and Issues,** London, Allen and Unwin , 1986, p.205 .

(2) - T. Black and D. Daniel, *op.cit.,* p.95 .

Thus, the level of capital adequacy is related to a bank's corresponding risk expoure . *Ceteris Paribus* , the higher a bank's risk exposure, the more capital is required . Moreover, accorrding to Sherman Maisel, capital is adequate when a bank controls the risk in its portfolio and maintains a level of capital sufficient to reduce possible losses and insolvency to an acceptable minimum (3) .

In fact, risk is unavoidable in banking activities . A banker who seeks to avoid all legitimate risks would not survive in the market-place for long . The efficient banker seeks to strike a judicious balance between potential profitability and risk exposure . With these points in mind, a logical step might be to indentify and measure all the relevent risks a bank may face in its operations, so as to take the appropriate protective strategies . These include fundamental banking risks like credit, country, liquidity, interest rate, leverage (debt servicing), currency and contingent (arising from commitments) risks . We may lable these a bank's portfolio risks . However, according to E. Gardener there are other risks that a bank must seek to indentify . These risks include

(3) - Sherman, J. Maisel, *op.cit.*, p.39 .

the following : (4)

- regulatory risk (excessively restrictive regulatory actions) .

- technology risk (investing in the wrong technology and technological failure or breakdown).

- operating efficieny risk (inadequate costs control, suboptimal operating policies) .

- market strategy risk (moving into the wrong market segments) .

Therefore, capital adequacy appraisal is concerned with all the risks to which a bank is exposed . However, these risks are indicative of the general kinds of risks a bank can encounter . What constitutes an adequate level of capital may differ considerably from bank to bank based on their portfolio risks . This is due to the fact that banks are heterogenous in their business mixes, risk exposures, profitability and capital .

(4) - Edward P.M. Gardener, **The Capital Adequacy Problem in Modern Banking**, Institute of European Finance Research, University College of North Wales, Bangor, 1989, p.5 .

Therefore, each bank should undertake its own risk audit so as to develop a good operational knowledge of the kinds of risk exposures to which the bank is exposed .

Researches like E. Gardener and J. Revell have suggestions based on empirical evidence that the increased resilience of well-diversified bank portfolios can withstand sudden and unpredictable shocks . They added that the lack of diversification may affect the bank overall performance and can lead to above-normal losses . Nondiversification may arise from a concentration of long-term maturities and, therefore, yield excessive interest rate risks . It may also stem from a concentration of loans in specific industries or individuals and from excessive short-term borrowing or a concentration in other type of managed liabilites .

Diversification is achieved through a logical division of assets and liabilities portfolio and other operations into pertinent activites . The effectiveness of diversification strategies may help a bank economise on its scarce capital resources (5) .

(5) - Goran, Bergendahl, **The Managemenet of Assets and Liabilites in Banks: Principles and Applications,** Institute of European Finance Research, University College of North Wales, Bangor, 1989, p.6.

A - Measurment of Capital Adequacy .

After the drastic decline in capital ratios of all Lebanese commercial banks since the early eighties, the issue of restoring sound capital ratios as a practical means for strengthing prudential safeguards and for instilling greater discipline in the assessment and control of the various solvency risks has now become of major priority .

Studies and research were conducted in virtually all countries by supervisors, economists and analysts in response to the need of preserving a stable, sound and competent banking sector . This foundation of the kind of theoretical work is needed to help vindicate the use of practical ratio analysis for capital adequacy assessments . In practice, there are wide variety of capital adequacy ratios, but to avoid complexity simple adequacy measures will be used . This include the ratio of capital to assets and capital to desposits .

The material covered in this section will focus on the above mentioned ratios and will compare the Lebanese banks ratios to those of US and the European banks . Due to its limited and scarce funds, Lebanon cannot compete with US or European banks . Therefore, Lebanese banks will be compared to other banks in the Arab countries in order to identify their position *vis-a-vis* the Arab banking sector . The study of ratios, however, provides the analyst and the regulator with a tool to compare a bank with others in the industry or with its own past record .

1 - Capital to Deposit Ratio .

This ratio has been employed widely throughout Europe up to the present day for assessing capital adequacy . Capital to deposit ratio is the basic and simplest tool used by both bank managers and bank supervisors for measuring and controlling the adequacy of their capital resources . In its simplest form, it relates the capital base to an aggregate of the bank's deposits . The Federal Reserve System authorities suggested that an adequately capitalized bank would have capital to deposit ratio between 6 and 8 percent .

If this ratio increases, the risk to which depositors and creditors are subjected would decrease. By setting limits on the capital/deposit ratio, regulators can put an effective ceiling on the maximum capacity for overall expansion of a bank for a given amount of capital resources. It has great advantage for banks because it dose not impose any constraint on the structure of business, thereby permitting maximum opertional flexibilty.

By adopting it, supervisors need not pass any prior judgemnt on the relative degree of riskiness of banking operations . But besides the management of a bank and its supervisors, there is another important group of observers for whom capital/deposits ratio is extermely useful - the depositing public, including other banks .

However, the limitation of such capital/deposits ratio results from its inflexibility in the treatment of the items to be considered, in the sense that they must be either included or excluded. This makes it difficult to incorporate into the measurement of capital adequacy those off-balance sheet items that do not carry full credit risk. And , of course, capital/deposit ratio dose not pay regard to the nature of the different types of asset that a bank holds .

The capital/deposits ratio for commercial banks in Lebanon decreased considerably, starting in 1985, due to a decline in the capital accounts . The ratio reached its lowst level of 0.29% in 1988 (See Table No.1). However, the current ratio for the commercial banks in Lebanon in 1990 reached a percentage of 0.88 .

As mentioned previously, the decline in the capital accounts was mainly casued by the deterioration of the Lebanese pound which inflated the balance sheet expressed in pounds, while maintaining the volume of capital account at a low level *vis-a-vis* foregin currencies .(See Figure No.1).

2 - Capital to Asset Ratio .

The capital/asset ratio implies that a bank's risk lies in its holdings of assets . Since the bank's risk lies in loans and investement portfolio, the losses are reflected in the bank's balance sheet by reduced value of assets. Therefore, capital/asset ratio is used as a measure of capital adequacy . This ratio , however, identifies the extent to which a bank's assets are financed by its capital. A maximum capital/assets raio of 7 percent was suggested by the Federal Reserve System in the United State as indication of adequate capitalization . It is worth considering, that the precise numercial ratio which is considered by the prudential supervisors, the depositors and the bank itself to be appropriate for any particular bank will vary considerably according to the nature of the business and, particularly, of the assets of that bank and also according to its profitability .

In our study, we shall analyze the capital/asset ratio for Lebanon and compare it to that ratio of various countries for which the most recent statistics were available . First, we calculated the capital/asset ratio of bank's in Europe and the United States,and we tried to compare it to that in Lebanon .

The results were astonishing . The average capital/asset ratio of banks in Europe and the United States turned out to be 5.68% (6) and 5.09% (7) respectively . In Europe, Yugoslavia had the highest ratio of 9.14% which is the average of five banks, (See Table No.2) and in the United States, the First American Banc had the highest ratio of 24.5% among 205 banks (See Table No.3) .

In Lebanon the ratio was very low (See Table No.4). The average capital/asset ratio of all Lebanese banks was in 1989, 0.48% (See Table and Figure No.5) , with Banque de L'Essor Economique (established in Tripoli 1989) having the highest ratio of 38.14% (See Appendix B) . This ratio is extraordinary if compared to ratios of the Lebanese banks. 71.4% of the Lebanese banks have a capital/asset ratio below 1% . Therefore, the ability of bank's capital to absorb losses seems to be very weak . It should be noted that a comparison between these ratios of Lebanese with European and United States banks seems to be unjust since the asset portfolio and operations of the former differ drastically from those of the latter .

(6) - Top 500 European Banks - By Country, **The Banker** , October 1990, p.28.

(7) - Top 1000 - By Country, **The Banker** , September 1990, p.138 .

This led us to compare the capital/asset ratio of Lebanese banks to the ratios of other Arab banks . The results were even worse than in the first case .

The average capital ratio of the banking sector in the Arab countries turned out to be 9.07% which is higher than in Europe and the US (8) .(See Table No.6) . Saudi Arabia had the highest capital/asset ratio of 16.77%. Being an Arab country, Lebanon's capital/asset ratio is not able to compete with any of the analyzed Arab countries . It should be noted that Syria had the lowest ratio of 1.26% of all Arab countries, but still a ratio which is almost threefolds that of Lebanon .

In conclusion , the Lebanese bank's capital ratio is very low and needs to be strengthened . The methods and procedures of increasing this ratio is beyond the scope of our study. However, in order to increase this ratio and according to Mr.Elie Noujaim, Vice Director of the Statistics and Economics Studies Department in the Central Bank of Lebanon : "Banks need to increase their capital

(8) - Top 100 Arab Financial Institutions - By Country, **The Banker**, November 1990.p.87 .

since they have become undercapitalized due to the decline of their capital base caused by the decline of exchange rate of the Lebanese pound from L.L 3.64/ $ by the end of 1980 to L.L 842 /$ by the end of 1990 " (9) .

II - Solvency

To maintain the solvency of a bank its assets should be equal at least to its liabilities (10). Bank managers, inorder to boost their profits, undertake risky portfolios. Due to the excessive risks which are undertaken by bankers losses usually occur and the value of bank's assets diminish . The losses, however, are absorbed by the bank's capital account . If the decrease in the asset value exceeds the amount of the bank's capital funds, then the bank is facing insolvency problems .

In the opinion of Lewis and Davis, when a bank gets into difficulities, its liquidity problems (shortage of cash) can in real adversity turn into solvency problems (effectively a shortage of capital) if the run on liquidity lasts until the less liquid assets of a bank are

(9) - Interview with Elie Noujaim, Vice Director of Statistics and Economics Studies Department of The Central Bank of Lebanon .

(10) - Artical 134 of the Code of Money and Credit .

unmatched by deposits . Inorder to remedy this, " it is essential that the value of a bank's assets should be supported by its capital by a margin appropriate to the extent and nature of its business " (11).

This margin of capital is needed to absorb losses that could arise, for example, from unforseen fall in the value of the underlying assets . Consequently, the capital account of a bank (basically its share capital and reserves) are necessary to face insolvency problems . It may be seen , therefore, that the role of shareholders' equity is that of a cushion for the depositors in case of problems .

A - Measrment of Solvency

1 - Own Funds to Assets and Contingent Liablities (Solvency Ratio) :

Bank of Lebanon issued circular No.435 in October 1983, which required banks to maintain a solvency ratio of at least 3 precent . The solvency ratio, as described by Bank of Lebanon, is "the ratio of own funds to total assets and

(11) - M. Lewis and K.Davis, **Domestic and International Banking** ,Oxford, Philip Allen Publishers, 1987, p . 88 .

credits by signature . Banks operating with a solvency ratio below 3 percent are required to increase this ratio to reach the required standard. Circular No. 435 was stipulated according to the Article 175 of the Code of Money and Credit, which states the following : " In order to safeguard sound banking activity, it shall be the duty of the Central Bank to occasionally specify, either generally or pertinently to individual banks , the ratio that should be maintanied between its assets and liabilities or between categories of assets and liabilities . Own funds shall be considered as liabilities within the concept of this Article . "

Moreover, Circular No. 435 was to be applied gradually up to December 31, 1985 . However, the application of the said solvency ratio has postponed by Circular No. 610 of December 7, 1985 till June 31, 1986 and then never applied.

The objective of regulating the banking system through implementing solvency control aims to achieve the following: (12)

(12) - Andre Chaib, " The Solvency of the Lebanese Banking System During the Period of Crisis " Banque du Liban, Bulletin Trimestriel, No. 24 - 27 . p. 88 .

1 - To safeguard depositors and preserve the public confidence in the banking sector .

2 - To provide a proper buffer for unanticipated losses .

3 - To be consistent with the liberal economic concept which states that every private institution aiming towards profit must have an adequate capital .

Table No. 7 shows the solvency ratio for all banks operating in Lebanon . Solvency computation was derived from the Central Bank's formula :

$$\text{Solvency Ratio} = \frac{\text{Own Funds}}{\text{Total Assets plus Credits by Signature}}$$

Own funds consist of :

- Share Capital .
- Reserves .
- Undistributed profits .
- Net income (or loss) for the year .

Credits by signature consist of :

- Guarantees and acceptances .
- Discounted and endorsement bills .
- Confirmed documentary credits .
- Other commitments .

The solvency ratio had deteriorated as from the beginning of the last decade (See Figure No.7) . In 1988, it decreased sharply reaching a percentage of 0.52 . In 1990 the ratio increased noticeably compared with previous years, reaching 0.93 percent . This relative increase is due to increases in capital, reserves, and to the non-distribution of dividends . However, the weakness of this ratio is a characteristic of all banks in Lebanon as a result of the depreciation of the Lebanese pound , since shareholders' equity is taken in Lebanese pounds, while 80 percent of total assets are denominated in foreign currencies (13) .

(13) - Freddie Baz, **Bilan Banque Liban 1990**. Beirut, Bankdata Financial Services, 1990 .

Reaching a percentage of 0.93 instead of at least 3% solvency ratio, commercial banks in Lenanon are considered unable to absorb risks and to sustain unexpected shocks . Commercial banks may face losses and insolvency problem if they do not plan adequately for contengencies . According to S. Maisel, banks become insolvent when "wittingly or unwittingly they concentrate too many of their loans, investements, or activities in areas where unanticipated events are likely to cause losses that move together and may be substantial " (14) .

Loan portfolio should be more diversified and analyzed carefully concerning the five C's of credit - capacity, character , capital (ability to create income), collateral (ownership of assets), and conditions (economic conditions).

Nevertheless, some analysts argue that the soundeness of a bank rather than its level of capital funds should be the focal point in evaluating bank solvency . Bank examiners, for example, have adopted an evaluation system called **CAMEL**, which rates banks on ;

(14) - Sherman J. Maisel, *op.cit.*, p.2 .

- Capital adequancy .
- Asset quality .
- Management effeciency .
- Earnings .
- Liquidity .

Capital is adequate when it reduces the chances of future insolvency to a minimun level . Although capital adequacy is important to a sound banking performance, other factors should be taken into consideration in determining the level of capital adequacy, such as operating efficiency, historical earnings and retention rates, growth of deposits and assets, the prevailing and expected economic conditions of the national economy and of specific areas served by the banks and the competitive enviornment (15). Good quality assets and a competent management are likely to face problems of insolvency . A record of good earnings is considered extermely important because it provides reserves for contengencies and losses that may occur .

(15) - E, Reed, R. Cotter , E. Gills and S. Richard; *op.cit* ., p.176 .

2 - Capital to Risk Asset Ratio :

As bank assets vary in their composition, regulators recognized that the composition of bank's assets could be more important in terms of risk than the size of assets . Off-balance sheet factors are also taken into account in determining how adequate capital holdings are for the banks. Capital to risk assets ratio sets out to appraise capital adequacy on the basis of banks' relative riskiness, and it is to this more sophisticated concept that we will turn to in chapter four .

TABLE NO. 1

CAPITAL TO DEPOSITS RATIO

OF LEBANESE COMMERCIAL BANKS 1974 - 1990

(IN PERCENTAGE)

PERIOD	CAPITAL / DEPOSITS RATIO
1974	5.72
1975	5.71
1976	6.25
1977	4.80
1978	4.52
1979	4.38
1980	4.42
1981	4.28
1982	4.76
1983	5.14
1984	4.59
1985	2.52
1986	1.12
1987	0.56
1988	0.29
1989	0.59
1990	0.88

SOURCE : Central Bank of Lebanon, _Bulletin Trimestriel_, Various Issues.

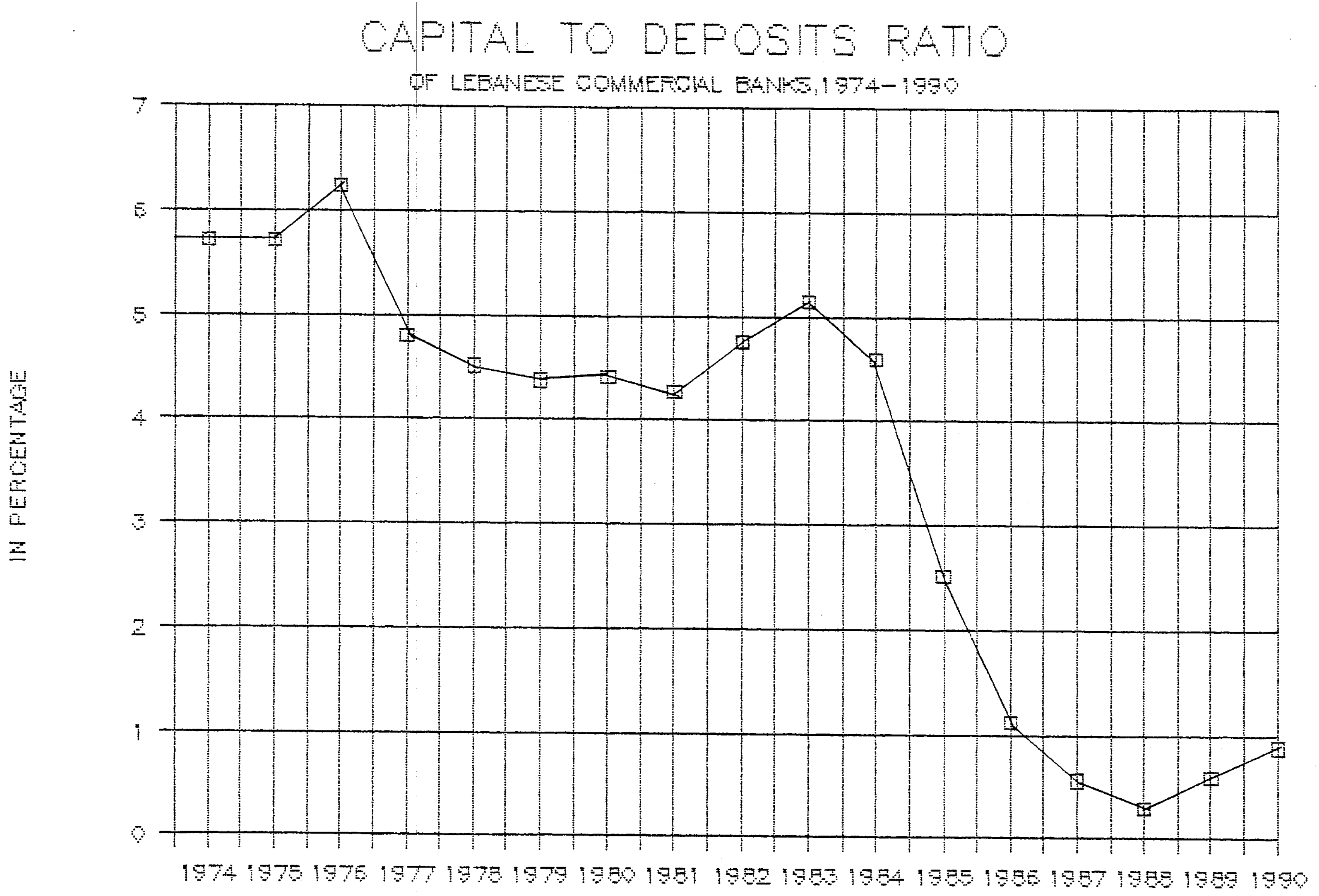
CAPITAL TO DEPOSITS RATIO
OF LEBANESE COMMERCIAL BANKS,1974-1990
IN PERCENTAGE
0
1
2
3
4
5
6
7
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990

FIGURE NO. 1

TABLE NO. 2

CAPITAL TO TOTAL ASSETS RATIO OF EUROPEAN COUNTRIE

1989

IN PERCENTAGE

COUNTRY	CAPITAL / TOTAL ASSETS RATIO
AUSTRIA	4.92
BELGIUM	3.46
CYPRUS	4.37
DENMARK	6.43
FINLAND	6.50
FRANCE	4.81
GERMANY	4.03
GREECE	5.25
HUNGARY	7.39
ICELAND	6.18
IRELAND	4.52
ITALY	8.97
LIECHTENSTIEN	8.52
LUXEMBOURG	2.33
NETHERLANDS	5.31
NORWAY	3.56
PORTUGAL	4.55
SPAIN	5.92
SWEDEN	5.68
SWITZERLAND	4.88
TURKEY	9.99
UNITED KINGDOM	6.90
YUGOSLAVIA	9.14

Source : Top 500 European Banks - By Country, The Banker, October 1990, p.28.

TABLE NO. 3

CAPITAL TO TOTAL ASSETS RATIO OF USA

1989

IN PERCENTAGE

COUNTRY	CAPITAL / TOTAL ASSETS RATIO
United States of America	5.09

Source : Top 1000 - By Country, The Banker, September 1990, p.138.

TABLE NO. 4

CAPITAL TO TOTAL ASSETS RATIO

IN SELECTED CONTINENTS AND COUNTRIES

1989

IN PERCENTAGE

	CAPITAL / T.ASSETS RATIO
UNITED STATES of AMERICA	5.09
EUROPE	5.68
THE ARAB COUNTRIES	9.07
LEBANON	0.48

SOURCE : - TOP 1000 - By Country, The Banker, September, 1990, p.138.

- TOP 500 European - By Country, The Banker, October, 1990, p.28.
- TOP 100 Arab Financial Institutions - By Country, The Banker, November, 1990, p.87.

TABLE NO. 5

AVERAGE CAPITAL TO TOTAL ASSETS RATIO OF LEBANESE COMMERCIAL BANKS 1974 - 1990

(IN PERCENTAGE)

PERIOD	CAPITAL / T. ASSETS RATIO
1974	4.03
1975	4.10
1976	4.21
1977	3.58
1978	3.34
1979	3.25
1980	3.17
1981	3.15
1982	3.50
1983	3.79
1984	3.38
1985	2.33
1986	0.92
1987	0.45
1988	0.24
1989	0.48
1990	0.67

SOURCE : Central Bank of Lebanon, <u>Bulletin Trimestriel</u>, Various Issues.

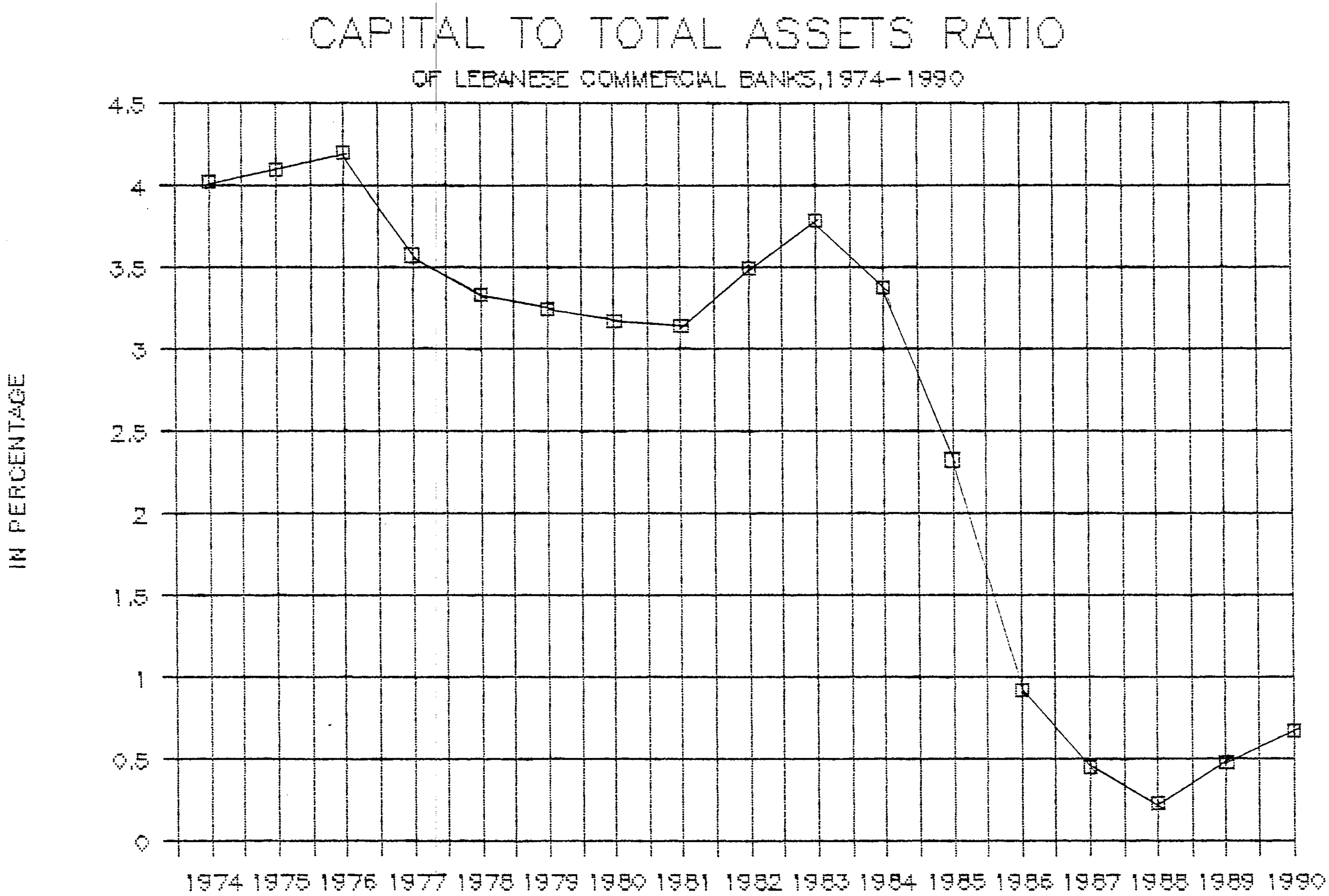
CAPITAL TO TOTAL ASSETS RATIO
OF LEBANESE COMMERCIAL BANKS,1974-1990
IN PERCENTAGE
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990

FIGURE NO. 5

TABLE NO. 6

CAPITAL TO TOTAL ASSETS RATIO OF ARAB COUNTRIES

1989

IN PERCENTAGE

COUNTRY	CAPITAL / TOTAL ASSETS RATIO
ALGERIA	7.05
BAHRAIN	14.43
EYGPT	7.76
IRAQ	6.41
JORDAN	7.27
KUWAIT	13.21
LIBYA	8.65
MORROCO	6.11
OMAN	5.68
QATAR	10.58
SAUDI ARABIA	16.77
SUDAN	17.11
SYRIA	1.26
TUNISIA	3.85
UNITED ARAB EMIRATES	9.89

Source : Top 500 Arab Financial Institutions - By Country, The Banker, November 1990, p.87.

TABLE NO. 7

SOLVENCY RATIO

OF LEBANESE COMMERCIAL BANKS 1981 - 1990

IN PERCENTAGE

PERIOD	SOLVENCY RATIO
1981	3.00
1982	3.52
1983	3.43
1984	3.12
1985	2.27
1986	1.03
1987	0.62
1988	0.52
1989	0.85
1990	0.93

SOURCE : Central Bank of Lebanon, *Bulletin Trimestriel*, Various Issues.

SOLVENCY RATIO

OF LEBANESE COMMERCIAL BANKS, 1981 – 1990

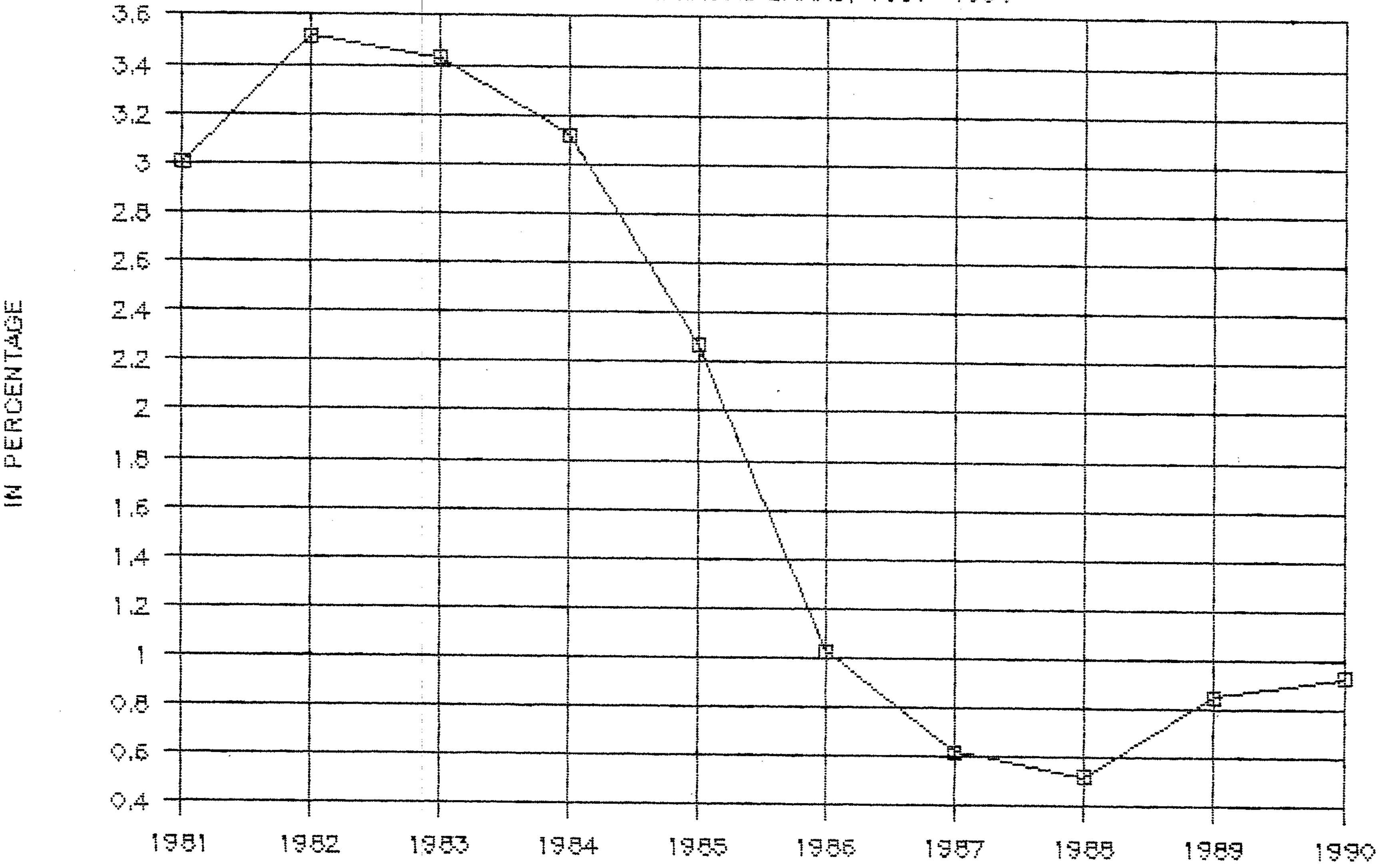

FIGURE NO. 7

CHAPTER FOUR

The Mesurment of Risk Asset Ratio of The Commercial banks in Lebanon

The purpose of this *Chapter* is to apply to the commercial banks in Lebanon the concept of Risk asset Ratio, which is in the process of being used in Europe, United States, Canada and Japan . This concept has been tackled by the Basle Accord and the European Commission. (EC) . Although the Basle Commitee and EC agreed on the same concepts, the Basle Agreement was more general since it included countries from outside Europe.

In the first *section,* we will introduce the Basle Accord and define its main characteristics . Then in the second *section,* we will analyze the major components in the Basle Accord which is the Risk Asset Ratio and will try to apply it to the commercial banks in Lebanon with some modifications . The balance sheet of 81 operating banks in Lebanon will be analyzed according to two methods :

- The risk weighted assets according to the Basle Accord, and

- The risk weighted assets according to the Banking Control Comission .

The results obtained will be compared and we shall attempt to recommend the optimal method to be used in Lebanon .

I Background

During the past years, there has been significant progress towards harmonization of international regulatory standards, including actions to bring national capital adequacy requirements for banks in accordance with the guidelines issued by the Basle Committee .

On December 10, 1987 the Basle Commitee on Banking Regulations and Supervisory Practices of the Bank for International Settlement (BIS) published its proposal for the convergence of national measurement and standards for bank capital adequacy (Basle Proposal). The Basle Commitee consist of representatives of central banks and supervisory authorities of the Group Ten Countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Switzerland, United Kingdom, United States), Sweden and Luxembourg. The objectives of the Basle Committee were to achive a common standard for measuring banks' capital adequacy, on a risk-based capital measure, and to establish a common minimum target capital standard for banks operating internationally (1).

(1) - Banking and Capital Markets Group, **Banking in The European Economic Community, 1992 and after,** London , Norton Rose, 1990, p.38.

The Basle Proposal would only apply to banks undertaking significant cross-border business (although it does not define that category). In practice, however, most commercial banks in member countries will probably be subjeted to the regime embodied in the Basle Proposal .

The Basle Proposal defines the capital to be included in a bank's capital base and applies a risk weighting system to each of the bank's assets and off-balance sheet items to determine whether the bank complies with the target or standard minimum capital ratio .

The Basle Proposal includes in a bank's capital base both Core Capital (Tier 1 items) and Supplementary Capital (Tier 2 items) . (Described in the Appendix A of Chapter 2) . The Committee confirms that the target standard ratio of capital to weighted risk assets should be set at eight percent (of which the core capital elements should be at least four percent). This is expressed as a common minimum standard which international banks in member countries will be expected to observe by the end of 1992 .

II - Risk Asset Ratio

Risk asset ratio is now the basic standard and monitoring system for commercial banks (2) . Conceptually, risk asset

(2) - Ross, Cranton, **1992 : The Legal Implications for Banking,** The Chartered Institute of Bankers, London, Hartnolls Press, 1989, p.93 .

ratio is a comparatively simple model .It sets out to appraise capital adequacy on the basis of banks' relative riskiness. The Basle Committee considers that a weighted risk ratio in which capital is related to different categories of asset or off-balance sheet exposure, weighted according to broad categories of relative riskiness, is the preferred method for assessing the capital adequacy of banks . This does not mean that the Committee ignores other capital ratios. It simply adds that other capital adequacy appraisal schemes are considered to be supplementary to the risk-weighted approach. The Committee believes that the risk asset ratio has the following advantages over simpler capital ratios : (3)

- it provides a basis for international comparisons;

- it facilitates the inclusion of off-balance sheet exposures; and

- it does not deter banks from holding liquid and other low-risk assets .

Assets are weighted according to the degree of counterparty credit risk in order to produce risk-adjusted values .

(3) - Committe on Banking Regulations and Supervisory Practices, **International Convergence of Captial Measurement and Capital Standards, July 1988, p.10.**

The framework of risk weights has been kept as simple as possible and only five weights are used : 0, 10, 20, 50, 100 percent (4). The central focus of this framework is credit risk, that is the risk of counterparty failure. But there are many other kinds of risk, for example, investment risk, interest risk, exchange rate risk and concentration risk . In addition, country transfer risk received more comments during the consultative period regarding its weighting . Currently national supervisory authorities have discretion in deciding whether to build in certain other kinds of risk. No standardisation has been attempted in the treatment of these other kinds of risk, but work is already underway to develop new controls for interest rate risk alongside the credit risk .

III - Measurement of Risks (5).

The risk asset ratio is adopted as the basic standard for determining required capital . The Committee believes that it is of great importance that all on-balance sheet activity should be considered within the capital adequacy

(4) - *Ibid*, p.10

(5) - Official Journal of the European Communities, Council Directive Nº 89/647/EEC of 18 December, 1989, **On a Solvency Ratio for Credit Institutions .**

framework . Different asset components are assigned specified risk weights and the required amount of capital is set in relation to the sum of risk-weighted assets. Off-balance sheet items are also included in the risk asset ratio methodology .

A - On balance sheet items

The risk weighting under Basle Proposal is as follows :

A **zero** risk weighting is to be applied to the following assets :

- Cash
- Claims on domestic government .
- Claims against other governments, if denominated and funded in local currency .

A **20%** risk weighting is to be applied to the following assets :

- Short term claims on banks.
- Cash items in the process of collection.

A **50%** risk weighting is to be applied to the following assets :

- Full secured loans on residential property.
- Certain prepayments and accrued income .

A **100%** risk weighting is to be aplied to the following aasets :

- Claims on private sector.
- Intangible assets .

On Balance Sheet Items	Risk Weights (In %)
10100 Cash In Vault (6)	0
10200 Central Bank	0
10300 Lebanese Treasury Bills	0
10400 Commercial Banks	20
10500 Meduim and Long Term Banks	20
10600 Financial Institutions	20
10700 Other Financial Instituations	20
10800 Head Office and Branches	20
10900 Parant CO. Foreign Sister and Subsid.	20
11000 Checks Purchased	20
11100 Doubtfull Loans from Banks	100
11200 Discounted Bills	100
11300 Short Term Customer Loans	50
11400 Med. and Long Term Customer Loans	50
11500 Loans To B.O.D.	50
11600 Loans To Public Sector	0
11700 Doubtfull Customers Loans	100
11800 Debtors by Acceptances	20
11900 Investement Securities	20
12000 Other Assets	20
12100 Other Debtors	50
12200 Orders and Regularizations Accounts	20
12300 Obligatory Financial Assets	0
12400 Financial Fixed Assets for Inv.	100
12500 Non Financial Fixed Assets	20
12600 Revaluation Assets	20

(6) - This number and the following numbers beside each balance sheet item is used by Bank of Lebanon for identification purposes .

B- Off-Balance Sheet Items

A two stage calculation is to be made .

First, The value of off-balance sheet items is discounted according to the risk associated with the instrument inorder to arrive at an adjusted value i.e. it is converted into an on-balance sheet equivalent.

Second, this adjusted value is further weigthted according to the credit risk associated with the countrerparty .

Off Balance Sheet Items		Conversion Factors (In %)
30110	Guarantees Againts Bills	20
30120	Discounted and Endorsment Bills	20
30130	Confirmed Documentray Credits	50
30140	Irrevocable Confirmed Doc. Credit	50
30210	Guarantees and Endorsment Bills	100
30220	Guarantees Againt Credit Facilties	100

Off Balance Sheet Items		Risk Weights (In %)
30110	Guarantees Againts Bills	50
30120	Discounted and Endorsment Bills	50
30130	Confirmed Documentray Credits	20
30140	Irrevocable Confirmed Doc. Credit	20
30210	Guarantees and Endorsment Bills	50
30220	Guarantees Againt Credit Facilties	50

The elements of off-balance sheet items and their corresponding credit conversion factors are :

- **0%** Short-term Commitments.
- **20%** Short-term trade-related contingents (eg documentary credits).
- **50%** longer-term commitments and some guarantees.
- **100%** credit substitutes (eg guarantees, acceptances, etc.) .

IV - measuring Risk Asset Ratio in the Central Bank of Lebanon .

In Lebanon,the Banking Control Commission (BCC) formulated a tentative study of measuring capital on risk based ratio. Its methodology is similar to the Basle Proposal with regard to the target standard ratio of capital to weighted risk assets . The Banking Control Commission set a ratio of eight percent . This would be observed by the end of 1992. The risk weights adopted by the BCC are similar to those contained in Basle Proposal but with incremental amendments due to the prevailing economic and political situation in Lebanon . All assets and certain off- balance sheet items are assigned to appropriate risk categories . A bank's risk based capital ratio is determined by dividing its capital to its weighted risk assets and off-balance sheet items .

A - On Balances Sheet Items

The assets with the appropriate weighted risks are as follows :

On Balance Sheet Items	Risk Weights (In %)
10100 Cash In Vault(7)	0
10200 Central Bank	0
10300 Lebanese Treasury Bills	0
10400 Commercial Banks	50
10500 Meduim and Long Term Banks	50
10600 Financial Institutions	0
10700 Other Financial Instituations	100
10800 Head Office and Branches	50
10900 Parant CO. Foreign Sister and Subsid.	50
11000 Checks Purchased	50
11100 Doubtfull Loans from Banks	100
11200 Discounted Bills	100
11300 Short Term Customer Loans	100
11400 Med. and Long Term Customer Loans	100
11500 Loans To B.O.D.	100
11600 Loans To Public Sector	100
11700 Doubtfull Customers Loans	100
11800 Debtors by Acceptances	100
11900 Investement Securities	100
12000 Other Assets	100
12100 Other Debtors	100
12200 Orders and Regularizations Accounts	50
12300 Obligatory Financial Assets	0
12400 Financial Fixed Assets for Inv.	100
12500 Non Financial Fixed Assets	50
12600 Revaluation Assets	50

(7) - This number and the following numbers beside each balance sheet item is used by Bank of Lebanon for identification purposes .

B - Off Balance Sheet Items

The Off-Balance Sheet items with the appropriate weighted risks are as follows :

Off Balance Sheet Items		Risk Weights (In %)
30110	Guarantees Againts Bills	100
30120	Discounted and Endorsment Bills	100
30130	Confirmed Documentray Credits	100
30140	Irrevocable Confirmed Doc. Credit	50
30210	Guarantees and Endorsment Bills	100
30220	Guarantees Againt Credit Facilties	100

The banking Control Commission omitted the step of converting off-balance sheet items into on-balance sheet risks with the capital adequacy framework . It simply multiply the off-balance sheet item by its determined risk weights .

V - Resutls

In calculating the risk asset ratio for commercial banks in Lebanon, we were confronted by two problems . The first problem was due to the huge losses which were incurred by 8% of the total operating banks in the industry (see Table No.1). These losses had rendered their own funds to be negative.

As mentioned before, own funds consist of : Share capital, reserves, subordinated loans, undistributed profits and net profit (or loss) for the year . However, some banks were incurring huge losses, thus their own funds were affected and turned to be negative .

Therefore, in this case we were not able to calculate their risk asset ratio due to the fact of obtaining a negative numerator, i.e. own funds, which is meaningless. In normal cases however, we do not encounter such problems, because banks are required to have a positive value for their own funds .

The second problem we faced in calculating the risk asset ratio was due to the excessive amounts of subordinated loans . This phenomenon resulted in an abnormal high risk asset ratio . According to the Basle Accord, "subordinated loans should not exceed 50% of the core capital (Tier 1 items) " .

However, some banks have ignored this criterion (may be because it is irrelevant to the case in Lebanon). Table Nº2 column 1 shows the amounts of subordinated loans that are acquired by commercial banks as at end of December 1990. Some subordinated loans were about 30,000 times their share capital (Banque de la Mediterranee) or even about 87,000 times their share capital (Mebco Bank).

Nevertheless, in calculating a solvency ratio based on risk asset weights and including all the amounts of subordinated loans, we obtained highly inflated figures (Table Nº 2 column 2(a))where it reached in some cases about 135% (future bank) if compared to a ratio of 6.81% based on 50% of the share capital in suborainated loans. Column 2 (a) and 5 (a) in Table Nº 2 compares the ratios obtained in each case . Colomn 2 (b) and 5 (b) calculates risk asset ratio according to the Banking Control Commission study . However, the Banking Control Commission applied more conservative measures in allocating risk ratios to different components of the assets . This is revealed by obtaining a lower ratios then those calculated according to the Basle accord .

Inorder to overcome this problem and to calculate a real risk asset ratio for the commercial banks according to the Basle Proposal, we have included only 50% of the share capital as subordinated loans .

This resulted in obtaining lower figures for the risk asset ratio if compared to the case without having restrictions on the subordinated loans . Table Nº 2 has measured risk asset ratio based on the Basle Accord and the banking Control Commission approach before and after making adjustment in the subordinated loans . The results obtained may be summerized as follows :

1 - The Basle risk asset ratio after adjustment is less than the Basle risk asset ratio before adjustment .

2 - The BCC risk asset ratio after adjustment is less than the BCC risk asset ratio before adjustment .

We may conclude that about 19% of the total commercial banks in Lebanon which have subordinated loans did not reach the eight percent ratio (see Table Nº 2 column 5) as specified by the Basle Proposal .

As mentioned earlier, about 8% of commercial banks in Lebanon had negative own funds, and 19% had excessive subordinated loans, but not a single bank had reached the target standard solvency ratio according to the Basle Proposal . Table Nº 3 shows the risk asset ratio of the remaining 73% of the commercial banks in Lebanon .

On one hand, Table Nº 3 measures the risk asset ratio similarly to Table Nº 2, i.e. according to the Basle Accord and the Banking Control Commisision study . On the other hand, the banks that are listed in the Table Nº 3 have no subordinated loans and their own funds are positive. According to Basle Proposal , only seven banks had a ratio which is greater than 8% (Rafidain Bank, Infibank, Banque de Credit national, Banque Beyrouyth pour le Commerce, Rifbank, Banque de l'Essor Economique Libanaise, and Commercial Facilities Bank) . i.e. about 9% of the total operating banks in Lebanon met the target ratio . However, Banque de l'Essor Economique Libanaise had a high risk asset ratio of 64.40% . The remaining banks are well below the lines of the Basle Agreement . Column (b) in Table Nº 3 reveals a lower risk asset ratio, due to the conservative method which is aplied by the Banking Control Commission . Accordingly, only 5 banks met the requirements .

Conclusion

The majority of the commercial banks in Lebanon falls below the ratio set by the Basle Accord . As our statistical results showed, only 9% of the banks can comply with the international standard requirements . The remedy lies in increasing the own funds of the commercial banks in Lebanon. The methods for meeting the international standard requirements will be discussed in the next chapter.

TABLE NO. 1

LEBANESE BANKS WITH NEGATIVE OWN FUNDS

(In thousands of L.L)

BANK NAME / ITEMS OF OWN FUNDS	FEDERAL BANK OF LEBANON	BANK OF BEIRUT	HABIB BANK LIMITED	ARAB AFRICAN INTERNAT. BANK	CAPITAL TRUST BANK	* MEBCO BANK	GLOBE BANK
SHARE CAPITAL	10 000	300 000	5 000	25 000	15 000	60 000	60 000
RESERVES	18 456	6 353	616	2 058	15 780	5 605	18
SUBORDINATED LOANS						30 000	
BALANCE CARRIED FORWARD	(110 111)		(10 180)	(476 092)	(35 840)	19	167
NET PROFIT OR (LOSS) FOR THE YEAR	(170 306)	(740 464)				(3 670 953)	(479 748)
TOTAL OWN FUNDS	(251 961)	(434 111)	(4 564)	(449 034)	(5 060)	(3 575 329)	(419 563)

SOURCE : CENTRAL BANK OF LEBANON, COMMERCIAL BANKS' BALANCE SHEETS, 1990

TABLE NO. 2

RISK ASSETS RATIO OF LEBANESE BANKS HAVING SUBORDINATED LOANS, 1990

BANK NAME	(1) SUBORDINATED LOANS (In 1'000 s)	(2) RAR Before Adjustment (In percentage)		(3) SHARE CAPITAL (In 1'000 s)	(4) ADJUSTING THE SUBORDINATED LOANS (In 1'000 s)	(5) RAR After Adjustment (In percentage)	
		Basle (a)	BCC (b)			Basle (a)	BCC (b)
BANCO DI ROMA	2 192 677	21.30	9.10	8 291	4 145.5	0.13	0.05
BANQUE TOHME'	6 013 372	34.70	20.20	20 000	10 000	0.18	0.11
SOCIETE' GENERALE	842 000	1.80	0.90	50 000	25 000	0.40	0.20
BANQUE DE LA MEDITERRANEE'	15 093 800	17.70	9.90	100 000	50 000	0.18	0.10
BANK * MEBKO	26 183 756	86.30	42.50	60 000	30 000	NA	NA
ADCOM BANK	147 350	1.60	0.90	50 000	25 000	0.60	0.40
NORTH AFRICA COMMERCIAL BANK	3 368 000	14.90	6.90	25 000	12 500	0.20	0.10
UNITED BANK OF SAUDI & LEBANON	400 000	5.60	3.20	200 100	100 050	2.80	1.60
PROSPERITY BANK OF LEBANON	8 441 113	59.60	32.30	150 000	75 000	1.60	0.80
JAMAL TRUST BANK	446 260	9.10	4.70	200 000	100 000	4.30	2.20
UNITED BANK OF LEB.& PAKISTAN	2 964 891	24.70	15.70	650 000	325 000	6.65	4.23
CREDIT COMMERC. DU MOYEN-ORIENT	395 131	6.50	3.00	200 000	100 000	3.33	1.55
FUTURE BANK	1 437 306	135.11	44.90	50 000	25 000	6.81	2.26
SAUDI LEBANESE BANK	1 684 000	6.70	3.10	750 000	375 000	3.14	1.46
AL-MADINA BANK	942 103	8.20	3.80	60 000	30 000	0.73	0.34

SOURCE : BANK OF LEBANON, COMMERCIAL BANKS' BALANCE SHEETS, 1990.

* REFER TO TABLE 1, BECAUSE OF 50 % OF THE SHARE CAPITAL AS SUBORDINATED LOANS, THE RAR BECAME NEGATIVE AND THUS NOT APPLICABLE.

TABLE NO. 3 *

RISK ASSET RATIO (RAR)

OF

THE COMMERCIAL BANKS IN LEBANON

1990

(IN PERCENTAGE)

COMMERCIAL BANKS IN LEBANON	(a) BASLE (RAR)	(b) BANKING CONTROL COMMISSION (RAR)
1 FRANSBANK - S. A. L.	5.80	2.70
3 BANQUE MISR LIBAN - S. A. L.	1.40	0.60
5 ARAB BANK LIMITED	2.00	0.80
6 BANQUE NATIONAL DE PARIS	1.00	0.50
7 BRITISH BANK	1.50	0.60
8 SOCIETE BANCAIRE DU LIBAN	0.30	0.20
9 RAFIDAIN BANK	19.00	9.90
10 BANQUE LIBANO FRANCAISE	3.20	1.60
11 LIBANAISE POUR LE COMMERCE	0.20	0.10
12 COM. BANK OF THE NEAR EAST	3.80	1.70
13 EUROMED BANK - S.A.L.	4.90	3.20
14 LIBAN ET D'OUTRE MER	4.50	1.70
16 SAUDI NATIONAL COM. BANK	2.40	1.00
18 NEDERLANDE GENERAL BANK	0.60	0.30
20 CREDIT AND COMMERCE INT.	2.30	1.30
21 BANQUE SARADAR - S.A.L.	0.60	0.20
22 BEYROUTH & DE PAYS ARABES	4.80	2.10

23 THE LEBANESE ARAB BANK	3.70	1.80
24 BANQUE JOSEPH LATI & FILS	3.40	1.60
25 FIRST PHOENICIAN BANK	0.20	0.10
26 BEIRUT RIYAD BANK - S.A.L.	1.30	0.60
27 INVESTMENT AND FINANCE	55.20	26.80
28 SYRIAN LEB. COMMERCIAL	7.10	2.90
29 BANQUE PHARAON AND CHIHA	0.30	0.20
30 BANQUE DE CREDIT NATIONAL	25.20	12.50
33 BYBLOS BANK - S.A.L.	2.10	0.90
36 UNIVERSAL BANK - S.A.L.	1.20	0.60
38 LEBANESE CANADIAN BANK	2.40	1.40
39 DE L'INDUSTRIE ET TRAVAIL	0.30	0.20
40 JORDAN NATIONAL BANK	0.60	0.30
41 LIBANO BRESILIENNE - S.A.L.	2.00	1.30
42 INTERCONTINENTAL LEBANON	0.70	0.30
43 CREDIT LIBANAIS - S.A.L.	2.90	1.80
44 BEYROUTH POUR LE COMMERCE	11.10	5.00
45 BANQUE AUDI S.A.L.	4.30	2.00
46 NASR LIBANO AFRICAINE	0.60	0.30
47 KUWEIT & THE ARAB WORLD	3.00	1.60
48 BANQUE JOSEPH GEAGEA	7.10	3.40
50 LEBANESE SUISSE BANK	3.20	2.00
51 BANQUE CREDIT POPULAIRE	1.50	0.80
52 BANQUE SADERAT IRAN	2.00	0.90
53 SYRIE ET DU LIBAN - S.A.L.	2.60	1.50
54 ALLIED BUSINESS BANK	5.00	2.40
55 RIFBANK - S.A.L.	11.10	5.50
56 HANDLOWY FOR THE M.E.	0.50	0.20

60	UNIBANK - S.A.L.	1.70	0.90
62	DE'ESSOR ECONOMIQUE LIB.	64.40	33.90
65	LEBANON AND KUWEIT - S.A.L.	6.00	2.50
67	LITEX BANK - S.A.L.	6.90	1.70
68	TRANS ORIENT BANK - S.A.L.	3.00	1.50
70	BANQUE AL-BEKAA - S.A.L.	3.90	1.80
72	LEBANON & GULF BANK - S.A.L.	2.30	1.10
74	FOREIGN TRADE BANK - S.A.L.	0.90	0.50
76	METROPOLITAN BANK - S.A.L.	5.30	2.40
77	ORIENT CREDIT BANK - S.A.L.	0.70	0.30
78	AMERICAN EXPRESS BANK	1.40	0.60
79	AL-MAWARED BANK - S.A.L.	2.70	1.00
81	CREDIT BANCAIRE - S.A.L.	3.20	1.70
82	COMMERCIAL FACILITIES BANK	22.50	11.70
84	WEDGE BANK M.E. - S.A.L.	3.60	1.60

* SOURCE : CENTRAL BANK OF LEBANON, COMMERCIAL BANKS, BALANCE SHEETS, 1990

CHAPTER FIVE

Consclusions and Recommendations

The Lebanese banking system was one of the most flexible and dynamic banking systems in the Middle East region .

From 9 banks in 1945, the banking industry grew at a rapid pace to reach 74 banks in 1975 and 90 in 1983 (1). At the same time, Lebanese banks by the end of 1981 had 30 operating banks outside Lebanon, in the Arab Gulf, Europe and African capitals (2).

The liberal economic system of Lebanon and its sound regulatory and legislative environment have played a preponderant role in the creation and development of a well organized banking system . Gradually, these factors lost their positive impact on Lebanon's economic realities, due to the war that has engulfed Lebanon since 1975. "Not only the war has interrupted the course of development of Lebanon's vocation as a major financial center in the Middle East, but it shattered the economic base of the country, specially after the Israeli invasion in 1982 and the internal conflicts "(3).

(1) - Andre Chaib, *op.cit.*, p.84 .
(2) - *Ibid*, p. 84 .
(3) - M.H. Bouldoukian, **Views and Acts**, Beirut , Printing House of the Catholicosate of Cilicia 1990, p.51 .

The levels of commercial bank capitalization wittnesed a secular decline after 1984 . As of December 1990 , a consolidated average capital asset ratio of 0.67% was calculated and a solvency ratio of 0.93% which was below the statutory requirement of 3% (according to Circular No.435) . The capital to deposits ratio as calculated in December 1990, was 0.88% , thus accounting to a lower level of lending oppurtunities . In applying the Basle risk weighted capital standard, the average risk asset ratio was 5.91% (only 60 banks of 81 operating banks were included in the analysis due to the weakness of the remaining 21 banks). Thus, the target standard ratio which was defined as to be reached at the end of 1992 by the Basle Accord, is far above the current ratio of the Lebanese banking sector as for 1990 .

Notwithstanding this deteriorating level in banking capitalization, Lebanese banks witnesed an acceptable liquidity ratio of 62.96% in 1990 . This liquidity position has been facilitated by the issuance of short-term treasury bills by the Central Bank of Lebanon on behalf of the Lebanese Treasury . To some bankers, the increasing amount of the treasury bills reduced the potential of banks to serve the private sector . No doubt, under normal circumstances, this observation is correct .However , under the present situation in Lebanon, investements in treasury bills by banks assist the latter in improving their liquidity position and profitability, and also narrow down the use of depositors money in making speculatory gains .

Moreover, the volume of doubtful debts increased drastically in banks' portfolios, and hence affected the porfitability performance of banks . The net income had declined, which in turn decreased the earnings and strained the bank's ability to absorb losses and build up reserves . In an attempt to increase banks' private funds, the Banking Control Commision issued Circular No.85 in December 15, 1983, in which it asked banks to transfer all their profits for the year to their free reserves account .

Public confidence in Lebanese banks sustained a decline due to the closures of major banks and fears about the solvency of the banking system as a whole . Seven banks out of 81 operating banks in Lebanon are incurring huge losses and are considered to be at risk . A total of 11 other banks resorted to Central Bank financing to replace deposit outflows (4). Another group of banks, whose liquidity difficulties are not quite as severe, were nevertheless considered to be at risk .

(4) - Central Bank of Lebanon ,Department of Satistics and Economics Studies .

Central Bank lending to the commercial banks has risen from L.L. 2 billion at end 1988 to L.L. 183 bilion in May 1991 (5). The financing from the Central Bank to the troubled banks has been provided against real collaterals . However, many cases of fraud in pricing of real estates have been suspected . Thus, the Central Bank currently is in process of revaluing the pledged real estates .

Several recommendations and propositions are presented herebelow in an attempt to prevent futur recurrences of bank failures . The need for rehabilitation of the banking system is essential and public confidence in Lebanese banks should be bolstered .

A - Increase bank capital .

Top priority should be focused to increase bank capital . The method for raising additional capital in a bank can be attained from two main sources, the raising of new capital on the market and revaluation of hidden fixed assets . Commercial banks continued to hold significant hidden reserves in the form of fixed assets which are valued at

(5) - *Ibid.*

historical prices. Banks can revalue real estate, and credit the counterparts to the capital account . In November 1985, the Banking Control Commission issued Circular No. 104 which does not authorize revaluation of hidden fixed assets . This is due to the fact that revaluation of hidden fixed assets is considered unrealized profits . However, to my opinion, revaluation of fixed assets could be subject only to 50% of the hidden fixed assets, whereby the other 50% could be raised through adding new cash to the capital . Because increase in capital is inevitable for Lebanese banks, specifically for troubled banks if they are to survive and to operate in a safe manner .

Therefore, undercapitalized banks should be forced to improve their capital position or other adjustments have to be taken by the financial authorities i.e. liqidation or merger with other bank(s) .

B - Liquidation of insolvent banks .

To reduce the possibility of bank failures which could be spread to sound institutions, the troubled banks should be declared legally insolvent and hence, the insolvent banks have to be liquidated .

Liquidation of insolvent banks may serve some useful purposes :

- it tends to weed out the inefficient or mismanaged firms;
- it induces changes in other banks to operate prudently; and
- it protects the depositors from further lapses .

C - Bank mergers .

One of the solutions that is being recommended by the Central Bank and other financial sectors is mergers .

Bank mergers is a phenomenon which is widely used in industrial and developed countries . " A merger occurs when one bank ceases to exist and its assets are combined with those of another " (6). In other words, it is a concentration of banking , whereby two or more operating banks are joined under a single management .

(6) - Benton E. Gup, **Bank Mergers,** Boston, Kluwer Academic Publisheres, 1989 , p.7.

Incentives for bank mergers in Lebanon are not different from other countries . However, there are peculiar points which require commercial banks in Lebanon to merge . One of the most important points is the difficulty in raising needed capital . Troubled banks may encounter difficulities so serious that a merger will be a desirable solution . Hence, merger can increase capital and strengthen the bank assets .

Bank mergers are means and not ends in ensuring banking stability . The main objectives and targets for mergers can be indentified as :

- to eliminate the weak and troubled banks which are no longer in a position to operate in a safe manner (such as the banks which are listed in chapter four in Tables No.1 and 2).

- To expand vertically if not in a position to expand horizantally .

Obligatory mergers :

Several research studies are being made by the Central Bank of Lebanon and other economists pertaining to bank mergers. It should be noted that the majority of Lebanese banks are family or individually owned . Thus , even if a bank was suffering from financial problems , it would not be inclined to merge with another bank inorder not to lose power .

Therefore, the studies which are currently under consideration, specify the following points :

1 - An undercapitalized bank will be allowed to continue operating solely, *ceteris paribus*, if it is able to obtain fresh capital from external sources inorder to strengthen its capital position, and hence, increase its solvency rario to the desired level .

2 - If a bank is not in a position to obtain external capital and , consequently, is unable to increase its solvency ratio, then it would be obliged to merge with another bank to reach the desired statutory reqirements .

Therefore , obligatory mergers are infact, optional mergers unless the imposed financial requirements are not met .

* * * * * * * *

* * * *

* *

*

Although capital adequancy is important for the soundness of any banking institution, too much reliance on the level of capital can impede bank growth and overshadow other factors which provide a more meaningful depicition of bank solvency than statistical ratios .

Moreover, the historical record reveals no relationship between the levels of bank capitalization and the incidence of bank failure . Capital ratios for the banks that have failed are not markedly different from those of banks that did fail . Asset quality, poor management practies , fraud and insider abuse have contributed more to the incidence of bank failuers than inadequate capital levels .

Moreover, the excessive risks taken by most banks and the weak enforcement of supervisory and regulataory authorities added more profound problems . The regulators have responsiblities for the stability of the banking sector as a whole . The most important and effective tool of bank supervision and control is examination . In discharching this task , the bank supervision's contact with individual banks enables it to form a unique view of the quality of bank's management, appraisal of assets especially loans and balance sheet structure .

Commercial banks should be examined as often and as meticulously by supervisors and regulators to ensure their soundness and their performance according to the applicable rules and regulations . The supervisory authorities must enforce regulations and detect problems before they degenerate into crisis .

There is a need for revitalization of the Banking Control Commission . Banking supervision should be strengthened and its general level should be improved . New qualified staff should be recruited and responsible bank inspectors should be honest . The cases of fraud by management should be prosecuted and the involved criminals must be brought to courts .

Appendix A*

The BIS Capital Definition
(as included in the capital base)
July 1988

I Capital Elements

A - Tier 1

(a) Ordinary paid-up share capital /common stock.

(b) Disclosed reserves .

B - Tier 2

(a) Undisclosed resrves .

(b) Asset revaluation reserves .

(C) General provisions / general loan loss reserves.

(d) Hybrid (debt/equity) capital instruments .

(e) Subordinated term debt .

The sum of tier 1 and tier 2 elements will be eligible for inclusion in the capital base, subject to the following limits .

* Source : Committee on Bank Regulations and Superviory Practices (July 1988), **International Convergence ofCapital Measurement and Capital Standards .** Basle : Bank for International Settlements BIS).

II Limits and restrictions .

1 - The total tier 2 elements will be limited to a maximum of 100 percent of the total of tier 1 elements .

2 - Subordinated term debt will be limited to a maximum of 50 percent of tier 1 elements .

3 - Where general provision / general loans loss reserves include amounts reflecting lower valuations of asset or latent but unidentified losses present in the balance sheet, the amount of such provisions or reserves will be limited to maximum 1.25 percentage points, or exceptionally and temporarily up to 2.0 percentage points, of risk assets .

4 - Asset revaluation reserves which take the form of latent gains on unrealised securities will be subject to a discount of 55 percent .

III Deductions from the Capital Base

From tier 1 : Good will

From total capital :

1 - Investments in unconsolidated banking and financial subsidiary companies .

N.B. : The presumption is that the framework would be applied on a consolidated basis to banking groups .

2 - Investments in the capital of other banks and financial institutions (at the discretion of national authorities).

APPENDIX B

CAPITAL / ASSETS RATIO (In percentage)

1988 - 1989

Commercial Banks in Lebanon	1988	1989
1 FRANSBANK - S. A. L.	0.300	0.820
2 BANCO DI ROMA	0.028	0.025
3 BANQUE MISR LIBAN - S. A. L.	0.090	0.070
4 BANQUE TOHME - S.A.L.	0.060	0.060
5 ARAB BANK LIMITED	0.034	0.320
6 BANQUE NATIONAL DE PARIS	0.140	0.120
7 BRITISH BANK	0.080	0.070
8 SOCIETE BANCAIRE DU LIBAN	0.190	0.200
9 RAFIDAIN BANK	0.430	
10 BANQUE LIBANO FRANCAISE	0.290	0.240
11 LIBANAISE POUR LE COMMERCE	0.070	0.080
12 COM. BANK OF THE NEAR EAST	0.350	0.300
13 EUROMED BANK - S.A.L.	0.410	
14 LIBAN ET D'OUTRE MER	0.070	0.520
15 FEDERAL BANK OF LEBANON	0.180	0.150
16 SAUDI NATIONAL COM. BANK	0.400	0.320
17 SOCIETE GENERALE - S.A.L.	0.060	0.040
18 NEDERLANDE GENERAL BANK	0.018	0.014
19 MEDITERRANNEE - S.A.L.	0.110	0.080
20 CREDIT AND COMMERCE INT.	1.610	1.500
21 BANQUE SARADAR - S.A.L.	0.060	0.060
22 BEYROUTH & DE PAYS ARABES	0.390	0.770
23 THE LEBANESE ARAB BANK	0.170	

24 BANQUE JOSEPH LATI & FILS	1.000	0.830
25 FIRST PHOENICIAN BANK	0.100	0.110
26 BEIRUT RIYAD BANK - S.A.L.	0.550	0.580
27 INVESTMENT AND FINANCE	0.200	0.120
28 SYRIAN LEB. COMMERCIAL	0.640	2.700
29 BANQUE PHARAON AND CHIHA	0.100	0.110
30 BANQUE DE CREDIT NATIONAL	13.360	12.050
31 BANK MEBCO - S.A.L.	0.080	0.080
32 BANK OF THE NEAR EAST	0.350	0.290
33 BYBLOS BANK - S.A.L.	0.340	0.340
34 ADCOM BANK - S.A.L.	0.200	0.180
35 BANQUE DE L'HABITAT - S.A.L.	5.630	
36 UNIVERSAL BANK - S.A.L.	0.150	0.130
37 BANQUE DE FINANCEMENT	1.230	0.540
38 LEBANESE CANADIAN BANK	0.040	1.240
39 DE L'INDUSTRIE ET TRAVAIL	0.180	0.210
40 JORDAN NATIONAL BANK	0.300	0.300
41 LIBANO BRESILIENNE - S.A.L.	0.120	1.060
42 INTERCONTINENTAL LEBANON	0.100	0.100
43 CREDIT LIBANAIS - S.A.L.	0.040	0.050
44 BEYROUTH POUR LE COMMERCE	1.240	2.300
45 BANQUE AUDI S.A.L.	0.140	0.150
46 NASR LIBANO AFRICAINE	0.120	
47 KUWEIT & THE ARAB WORLD	1.530	0.780
48 BANQUE JOSEPH GEAGEA	1.560	2.670
49 N. AFRICA COMMERCIAL BANK	0.050	0.050
50 LEBANESE SUISSE BANK	0.070	1.080
51 BANQUE CREDIT POPULAIRE	0.140	0.310

52 BANQUE SADERAT IRAN	1.420	1.030
53 SYRIE ET DU LIBAN - S.A.L.	0.080	0.090
54 ALLIED BUSINESS BANK	0.420	1.660
55 RIFBANK - S.A.L.	0.072	1.470
56 HANDLOWY FOR THE M.E.	0.120	0.220
57 BANK OF BEIRUT - S.A.L.	0.400	0.340
58 UNITED OF SAUDI & LEBANON	0.180	0.920
59 PROSPERITY OF LEBANON	0.970	
60 UNIBANK - S.A.L.	0.500	0.360
61 JAMMAL TRUST BANK - S.A.L.	0.830	0.780
62 DE'ESSOR ECONOMIQUE LIB.		38.140
63 UNITED OF LEB. & PAKISTAN	0.080	3.000
64 CREDIT COMMERCIAL DE M.O.	0.070	1.060
65 LEBANON AND KUWEIT - S.A.L.	1.530	1.270
66 HABIB BANK LIMITED	0.470	0.430
67 LITEX BANK - S.A.L.	2.610	
68 TRANS ORIENT BANK - S.A.L.	0.550	1.620
69 ARAB AFRICAN INTERNATIONAL	0.570	0.670
70 BANQUE AL-BEKAA - S.A.L.	0.330	0.980
71 FUTURE BANK - S.A.L.	1.360	0.990
72 LEBANON & GULF BANK - S.A.L.	0.170	1.640
73 SAUDI LEBANESE BANK - S.A.L.	0.500	0.380
74 FOREIGN TRADE BANK - S.A.L.	0.050	0.360
75 CAPITAL TRUST BANK - S.A.L.	0.100	0.120
76 METROPOLITAN BANK - S.A.L.	1.780	1.570
77 ORIENT CREDIT BANK - S.A.L.	0.210	0.260
78 AMERICAN EXPRESS BANK	0.096	0.089
79 AL-MAWARED BANK - S.A.L.	0.250	0.170

80 GLOBE BANK - S.A.L.	0.350	0.300
81 CREDIT BANCAIRE - S.A.L.	0.820	1.380
82 COMMERCIAL FACILITIES BANK	5.030	8.800
83 BANK AL MADINA - S.A.L.	0.620	0.410
84 WEDGE BANK M.E. - S.A.L.	0.600	0.570
85 NATIONAL BANK FOR INDUSTRIAL AND TOURISTIC DEVELOPMENT	5.140	4.510

SOURCE : CENTRAL BANK OF LEBANON, COMMERCIAL BANKS, BALANCE SHEETS, 1988-1989

Bibliography

Argus of Lebanon Documents, **The Code of Money and Credit,** Beirut, Bureau of Lebanese and Arab Documentation, 1984

Asseily, A. **Central Banking in Lebanon**, Beirut, 1967 .

Ayoubi, I. **Capital Adequacy of Lebanese Banks,** MMB Project American University of Beirut, 1990 .

Badrud-Din, A. **The Bank of Lebanon : Central Banking in a Financial Center and Entrepot** , London, France Printer, 1984 .

Banking and Capital Market Group, **Banking in the Economic Community, 1992 and After** , London, Norton Rose, 1990 .

Bank of Lebanon, **Annual report**, Various Issues

Bank of Lebanon, **Bulletin Trimestriel**, Various Issues .

Bank of Lebanon , Various Circulars .

Baz, F. **Bilan Banques Liban 1990,** Beirut, Bankdata Financial Services, 1990 .

Bergendahl, G. **The Manangement of Assets and Liabilities in Banks : Principles and Applications**, Institute of European Finance Research, University College of North Wales, Bangor, 1989 .

Black, T. and Daniel, D. **Money and Banking,** Second Edition, Plano, Texas, Business Publications, 1985 .

Bouldoukian, M. **Views and Acts,** Beirut, Printing house of the American Catholicosate of Cilicia, 1990 .

Chaib, A. "The Solvency of the Lebanese Banking System During the Period of Crisis", Banque du Liban, Bulletin Trimestriel, Nº 24-27, 1985 .

Committee on Bank Regulations and Supervisory Practices (July 1988), **International Convergence of Capital Measurement and Capital Standards** (Basle : Bank for International Settlements BIS).

Cooper, J. **The Management and Regulation of Banks,** Great Britain, Macmillan Press, 1984 .

Cranton, R. **1992 : The Legal Implications for Banking**, The Chartered Institute of Bankers, London, Hartnolls Press, 1989 .

Eichengreen, B. and Portes, R. **The Anatomy of Financial Crises,** Intstitute for International Economic Studies, University of Stockholm, Seminar Papers Nº 357, 1987 .

Gardener, E.P.M. **Regulation and Convergence of Capital Adequacy**, Institute of European Finance Research, University College of North Wales, Bangor, 1989 .

Gardener, E.P.M. **The Capital Adequacy Problem in Modern Banking**, Institute of European Finance Research, University College of North wales, Bangor, 1989 .

Gardener, E.P.M. **U.K Banking Supervision, Evolution, Practice and Issues**, London, Allen and Unwin, 1986 .

Gup, B. **Bank Mergers,** Boston, Kluwer Academic Publishers , 1989 .

Haslem, J. **Commercial Bank managment : Text and Readings** , Second Edition, New York, Prentice Hall, 1985 .

Hempel, H. **Management Polices for Commercial Banks,** New York, Macmillan, 1983 .

Himadeh, S. **Monetary and Banking System of Syria,** Beirut, American Press, 1935 .

Institute of Money and Banking, **Bank mergers in Lebanon,** Beirut, American University of Beirut, 1988 .

Intreview with Elie, Noujaim, Vice Director of Statistics and Economics Studies Department in the Central Bank of Lebanon, Beirut, 20 April 1991 .

Lewis, M. and Davis, K. **Domestic and Interntional Banking,** Oxford, Philip Allen Publishers, 1987 .

Maisel, S. **Risk and Capital Adequacy in Commercial Banks,** Chicago, the University of Chicago Press, 1986 .

Official Journal of the European Countries, "Proposal for a Council Directive on a Solvency ratio for credit institutions" , Notice 89/647/EEC of 18 December, 1989 .

صفا البروفسور بيار ، سلسلة محاضرات في القانون المصرفي المقـــارن ، بيروت ، جمعية المصارف في لبنان ، معهد الدروس القضائية ، شباط ١٩٧٤.

Samuelson, P. **Economics,** Tenth Edition, Singapore, McGraw Hill, 1976 .

Top 100 Arab Financial Institutions - By Country, **The Bankers,** November 1990 .

Top 1000 - By country, **The Banker**, September 1990 .

Top 500 European Banks - By country **The Banker** , October 1990.