

***"COUNTRY RISK ASSESSMENT:
AN APPLICATION TO LEBANON"***

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“Country Risk Assessment: An Application to Lebanon”

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Thesis

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**To my parents,
who taught me the merits of
discipline and the rewards of education
and to my husband,
who provided me support and
encouragement.**

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CHAPTER
1

INTRODUCTION

Two decades ago, international lending was prospering due to the active economic growths. In the early 80's, the Mexican declaration of its inability to pay its external debts tolled an important bell. Then, collaterals were not enough for loans in the absence of the governments' willingness to repay their obligations. The importance of "country risk assessment" appeared. International lenders started employing country risk notions in their credit analysis.

In early 90's, the term leading the concept of globalization or business internationalization is "non sleeping markets". Wide investment opportunities round the world are facilitated through business institutions working in these markets. International investors would like to investigate the national economic developments and the political stability in addition to other risks in a certain country. Therefore, country risk analysis would be a survival key for foreign investors.

At this point country risk could be defined as "The primary additional component that distinguishes an international loan (investment) from a domestic one." (Wolfe, 1978, p.10).

Traced back to the late 60's and early 70's, Lebanon has been considered the gateway to the Middle East. Its unique position between the industrial lords in the West and the raw materials owners in the East helped in its identification as the trade center in the region. The Lebanese economy was at a peak and achieved high performances in various sectors especially services.

Sixteen years of political instability and economic slowdown left Lebanon away from its developing path.

Confidence in Lebanon was again at the scene in October 1992 after the nomination of Mr. Rafic El-Hariri as the Prime Minister. The restored confidence of the international society and the Lebanese community in the role of Lebanon as a safe center for investments was reflected in its achievements in the country risk ratings. Lebanon managed to move 74 places up in the Euromoney ratings of country risk between September 1992 and September 1994.

In the eve of the 20th century, Lebanon secured to move steadily into the 21st century. Throughout September 1992 - September 1994, Lebanon managed to re-step into its old position in the international business world. Three main observations set the idea of this thesis:

- 1- The improved macroeconomic situation that is highly marked by the slow and constant appreciation of the Lebanese Pounds, the maintained stability and the development plans.
- 2- The successful issuance of Solidere shares in January 1994. The preliminary subscriptions attracted \$ 925 million while the amount needed was \$ 650 million. The

final subscriptions resulted in \$ 600 million for the Lebanese investors and \$ 50 million for the Arabs.

3- The successful issuance of the Eurobonds in October 1994. Again, Lebanon was number one among the Arab countries to enter the international financial markets from such a place. The subscriptions approached \$ 800 million while bonds issued were for \$ 400 million.

The Lebanese ability to adapt to various kinds of changes supported by the general freedom atmosphere helped Lebanon back into the international society. Curiosity to dig into the strength points of Lebanon that accompanied its survival process to attract foreign capitals and rebuild the country, led to this thesis.

The purpose of this thesis is to reveal the Lebanese current situation and investigate the country risk factors in its recent economic history. The thesis is organized in five chapters. Chapter 1 discusses the importance of country risk assessment to the international lenders and investors. It also describes the Lebanese international position in the past and present. Chapter 2 is twofold. The first part discusses the causes of country risk, investors/lenders management ability of macro risks and the open system's reactions towards externalities. The second part analyzes country risk assessment approaches. Chapter 3 presents the country risk relevance for Lebanon in two parts. It starts with the analysis of risk takers (claimants). The second part analyzes eight risk issues in Lebanon. The frame work of the risk analysis includes the definition of the risk

and its effects followed by the analysis of the Lebanese case. This chapter is supported by statistical tables and illustrative graphs. Official data on the Lebanese economy is not available, therefore the data presented in chapter 3 and chapter 4 are the best available estimates according to various resources. In chapter 4, two regression models are estimated for country risk for Lebanon based on the most relevant risk issues in Lebanon. The first model explains and analyzes the default premium. The second explains and analyzes the exchange rate. In this chapter statistical techniques are used to build the multiple regression models. Finally, chapter 5 presents concluding remarks.

CHAPTER
2

LITERATURE REVIEW

Definition of country risk and implication of other risks

This chapter provides a review of the country risk literature. A general definition of country risk was given by Lessard in the proceedings of the eleventh annual economic policy conference of the Federal Reserve Bank of St. Louis in 1989:

“Country risk can be defined as the risk of changes in an asset’s value due to sovereign policy responses that involve general or selective default on, confiscation of, or taxation of claims in response to circumstances under which either or both ability and willingness of sovereign to meet all of the claims placed on it is impaired.” (P: 208)

The previous definition summarizes several important risks defined in the literature such as sovereign and political risks.

This chapter is divided into two main parts: The first part includes three sections. Section one deals with the causes of country risk. Section two discusses the acts by the governments, the types of investors and their management abilities of macro risks. The third section deals with the open system actions towards externalities of borrowing and concludes with an empirical evidence on the determinants of default.

Part two has four sections. Section one defines country risk assessment and lists the different approaches to it. Section two discusses each system's advantages and disadvantages. Section three analyzes the structured qualitative and unweighted checklists systems. Finally, section four presents the Euromoney approach to the country risk analysis.

Part I: Risk Analysis:

Sovereign risk in international lending is a term used for default or rescheduling of foreign borrowings. While in the portfolio equity investment terms, sovereign risk refers to the changes of returns of investments in domestic firms or foreign ones operating in that country. Political risk in direct foreign investment is the risk due to changes in internal policies or confiscation losses.

Causes of the risks

The risks defined apply to various types of borrowers (government, public or private sectors) within the same borders in different intensities on lenders (investors) and assets' evaluation. These risks are caused by three main factors:

1-Exogenous (external factors due to chance), for example; the changes in world's economy.

2-Endogenous (internal factors due to choice), for example; the changes in internal policies not necessarily violent ones. This could include the usual changes in governments, parliaments or presidency.

3- A combination of exogenous and endogenous factors. The results of external risks depend on the degree of their effects: whether significant, specific on an economic sector or general on the whole economy. This is the case in many developing countries that barely experience stable internal political situations, financial independence and diversified economies. (Lessard, 1989, p:200-201)

The internal risks are mainly reflected in the government's willingness to pay to reserve its chances in future loans and avoid lenders' penalties. After having the willingness, the ability of the borrower to pay would be shaped by the solvency issues.

Different policies created internally to face internal and external changes would have different effects on investors according to their claims.

A major problem in several developing countries is the balance of payment (BOP).

$$\text{BOP} = (\text{Exports} - \text{Imports}) + \text{net cash flows.}$$

$$\text{Current account} = (\text{Exports} - \text{Imports}) + \text{transfers.}$$

Deficit financing would reflect on internal growth and debt servicing leading to the implementation of several internal policies.

Model of deficit financing:

A model on deficit financing would help in understanding the internal changes by the government in such cases and the risks facing the claimants. This model is implied in the second chapter of Macroeconomics by Gordon (1990). (P: 37-44)

In a certain country:

$$\text{Total Injections} = \text{Total Leakages}$$

$$I + G + Ex = S + T + Im$$

where I = internal investment by private and public sectors

G = government spending

Ex = exports

S = private savings

T = taxes (government revenues)

Im = imports

Rearranging terms:

$$I + (Ex - Im) = S + (T - G)$$

Define: $(Ex - Im)$ as foreign investment = I^f

$(T - G)$ as government savings if positive, dissavings if negative

Then: $S + (T - G) = \text{National savings}$

$$I + I^f = \text{National savings}$$

If the government is facing a budget deficit ($G > T$), that is the government is dissaving, the national savings and investments would decline. Then the economy is left with fewer funds to invest domestically through I, and abroad through I^f .

In the long run, the lower level of capital accumulation would cause lower growth and therefore lower chances for debts servicing and repayment.

To deal with the deficit crisis in order to revive the BOP (to keep a source of foreign currencies to serve debts and imports):

1. The government would have to decrease its spending and /or increase its tax revenues.

The deficit decrease would require a close monitoring of money and credit supplies in order to avoid inflation in periods of low or unproductive investments and decrease imports at the same time.

IMF would have a supportive classical treatment of currency devaluation and imports decrease. It is important to note here that the highest depreciation of the Lebanese Pound in 1987 caused high nominal exports' levels. (Shahin, Lecture, Feb. 1993)

According to various sources, in order to keep the needed currency for the country's growth, debt and imports financing; the government could:

- 1- Control exchange (movement of foreign currency) by supporting exports (foreign currency in) and some kind of opposing imports (preserve foreign currency in) by imposing taxes on imported goods.

- 2- Change fiscal policies by increasing taxes (both direct and indirect), enhance tax collections and avoid tax evasions.

- 3- Limit the foreign ownership and behavior of foreign controlled firms.

If these policies were implemented by a certain government, they would be considered as risks facing foreign claimants.

Types of claimants (investors and lenders):

The claimants could be divided into two parties; direct and local investors and portfolio investors.

- Direct and local investors such as multinational companies, offshore companies, subsidiaries and domestic groups. These have direct equities in foreign controlled local firms or have portfolio equities in local private firms.
- Portfolio investors such as official lenders, commercial banks and institutional investors. These include foreign currency lenders to the government and /or private firms and home currency lenders to the government and /or private firms.

When the risky changes (previously discussed) are implemented by the government, there is no effect on the government's debts in foreign currencies. However, these policies have various effects on the other types of investments.

1- Exchange control affects both types of investors. Portfolio investors (depending on a fixed loan rate) are affected more than the direct investors (having equity shares). This is because interest rates are paid and repatriated annually, while equity shares could stand in for the life of the company.

2- The increase in tax rates affects portfolio investors indirectly through the impact on these firms' cashflows (increase in expenses -outflow of cash- leading to decrease in net profits). Direct and local investors are affected both directly and indirectly.

3- Limits on foreign ownership and control of foreign firms affect only the direct and local investors in these firms. It is important to note here that in LDCs, the limited

domestic markets have small bedfellow effects; that is, foreigners do not have much local partners so that the claims of the government (risks) do not affect local investors in foreign firms as much.

To conclude this section, the policy choices of an LDC government are less affected by bedfellow effects than in industrial countries. However, the internal choices must watch out carefully for the external world's sanctions. (Lessard,1989, p:200-205).

Risk management functions:

Risk management has three main functions: assessment and analysis of information, mitigation and diversification. Each claimant sector has certain abilities to apply risk management functions on the internal macrosystems of the host countries.

- Official lenders and commercial banks are the highest institutions in analysis and information processing followed by local investors. Institutional and direct investors are the least in the analysis function.
- Official lenders affect a country's willingness to pay. Their tough regulations, their ability to take part in internal policies of the borrowers and to decide on the kinds of projects to invest their loans in, their penalties in case of default as well as their primary obligations in case of bankruptcy enable them to have a good mitigating power of macropolicy risks. The commercial banks' lenders could have such a power in case they act as a unit. On the other hand, institutional, direct and local investors work mainly on microlevels. They have only their firms' information levels and no

access to policy makers, therefore, they have no mitigation abilities on the macro level.

- The diversification of macropolicy risks could be achieved by institutional investors only. As they are the ones able to choose their profitable investments' projects and countries to get in. (Lessard,1989, p: 209-211).

After the review of the various types of internal risks, claimants and risk management, the next section will review the open system's actions towards externalities of borrowing as well as an empirical evidence of the determinants of default.

Open system's actions towards externalities of borrowing:

An open system is one that interacts with its surrounding environment and tries to adapt to its changes in order to survive. A country's openness is measured by its interaction with other countries in order to preserve their growth and continuity.

Credit supplies to countries (that are usually for public or publicly guaranteed borrowers) are received by the government or the central bank. The central bank gives the loan amount to the private sector for purposes of consumption or investment projects. Some effective investments increase the openness of a country that in turn decrease default risk by increasing its costs. In case of loans for consumption or unproductive investments and the increased dependency on international trade (mainly imports), the default risk increases leading to a higher country risk. The central bank has the ability to default on the country's loans in case the default costs are less than the debt servicing and it is for the welfare of the community.

The planners (governments and central banks) usually plan for the welfare of their communities by putting a social interest rate. While the private sector borrowers plan for their own welfare putting on a private interest rate and neglecting their default effect on the community. In order to preserve the community's welfare and the country's credit worthiness, the central banks try to implement optimal policies. To decrease the negative effects or externalities of certain activities and enhance the positive externalities of others aiming at decreasing default probabilities, these officials:

- Impose taxes on borrowers for consumption.
- Impose taxes on borrowers for unproductive investments and imported goods. This would help in increasing internal investments in goods replacing imports.
- Reduce taxes on investments for exports. The decrease in default probability due to these investments would encourage a subsidy for such projects. Such subsidies increase investments in these sectors leading to more openness even in case of increased indebtedness.

The ultimate goal of the financial planners is to maintain a social welfare. This is done by imposing taxes (subsidies) when the social interest rate is higher (lower) than the private interest rate.

A country that has a risk premium and different conceptions of default probabilities between borrowers and lenders, calculates its social interest rate as a weighted average of

three factors. These factors are: the marginal cost of indebtedness, rate of time preferences and marginal return in the private sector.

The increase in demand of the public sector projects increases the interest rates and foreign borrowings. This would cause a decrease in private domestic investments and increase in private domestic savings.

Edwards (1986) in an article published in the Journal of International Money and Finance, presented the results of a cross-section study on nineteen developing countries for the years 1979 and 1980. He assumed several determinants of a country's default measured by weighted spread over LIBOR values. Regression analysis of the data showed:

1- A significant positive relationship between the default and country's indebtedness (debt/ GNP ratio). This relation draws the supply curve of foreign funds for developing countries. The supply curve is upward sloping until a certain point where it bends backward (reaching a credit ceiling where the default approaches unity and then the country will not be able to get credits).

2- A significant negative relationship between the default and the country's reserves/GNP.

3- A significant negative relationship between the default and the country's investment/GNP measuring the average propensity to invest.

4- Some evidence favoring the existence of externalities on developing countries' foreign borrowings. These externalities were reflected in taxes. The probability of default is a determinant in risk premium assumptions for foreign lending. (P: 89-92)

To conclude, part I of the literature review discussed the sources of risks (exogenous and endogenous), types of government actions towards claimants (fiscal policies and controls) as well as the claimants' abilities to manage these risks and the ability of the open systems to manage their positive and negative externalities. The last section presented the government actions to preserve the social welfare. Finally, the country's default was found to be affected by the debt/GNP ratios, reserves/GNP, investment and risk premiums on loan rates.

Part II: Risk Assessment

Approaches of country risk assessment

Assessment of country risk is “the evaluation of whether debt servicing problems will arise or not.” (Ciarrapico, 1992, p.7). The classification of the formal systems of country risk assessment appeared first in an article by Stephen Goodmans (1978) titled “How the big US banks really evaluate sovereign risk.” These systems ranged from qualitative to quantitative. The derivation of the systems is found in a study by the Eximbank of 39 US banks about their country risk estimation approaches. (Ciarrapico, 1992, p.78). The systems could be mainly divided into four types: fully qualitative, structured qualitative, checklists and quantitative.

Systems definitions, advantages and limitations

Qualitative methods

The qualitative analysis is a comprehensive one of a country’s political and economic situations. This approach could be:

- Fully qualitative; if applied to one country at a time.
- Structured qualitative; if having a structured format that could be applied to various countries (general framework) and yield comparable results.

Quantitative methods

The quantitative methods use sophisticated statistical and econometric techniques. These techniques use a set of independent variables to predict and explain a dependent variable.

Checklists

The checklist systems are “the main formal computational approaches to risk assessment used by international banks and are the techniques with which bank economists in general tend to feel happiest.” (Abassi and Taffler, p: 543).

These systems are confirmed by normative linear additive models by: Nagy (1979), Robinson (1981) and Thompson (1981). However, no tests were conducted on the operational validity of these models. Checklists contain a set of variables that evaluate the economic, financial, social and political situations in various countries and yield comparable results. Checklists are weighted if subjective different weights are applied to different variables or unweighted if all variables are assumed equal in weight.

The following section will present the advantages as well as the limitations of each of these methods.

Advantages and limitations of the assessment systems

The qualitative methods are subjective in general; the fully qualitative method estimates a country's risk level without a framework yielding incomparable results. However, the structured qualitative method evaluates various countries in a certain framework leading to comparable results. (Ciarrapico, 1992, p:8).

The quantitative methods are objective in general and their results are highly comparable. However, the analysts find difficulties in choosing the dependent variable, independent variables as well as the econometric methods to be employed.

The checklists could be subjective or objective. The checklist systems enable the analysts to compare and grade various countries' performances overtime. They are considered as quantitative methods that could accommodate econometric and statistical analysis. The problems with this approach are:

1. A test by Blash in 1977 on 7 checklists found that 6 of them acted poorly.
2. The choice of the large number of variables and assigning weights to them if using weighted checklists. (Abassi and Taffler, 1984, p:543).

Still checklists remain a form of systematic risk analysis that provide better comparable sovereign risk results.

In this paper, some aspects of the structured qualitative method as well as a kind of checklist would be employed to get to know the general position of Lebanon.

The structured qualitative method

The structured qualitative method examines the country's economic and political accomplishments over time. In this method, the analyst explores the flexibility of the country to adjust to changes in external and internal environments by evaluating its capacities and defects. The analysis is carried on certain economic indicators that have

direct or indirect effects on a country's ability to repay its obligations. In the following paragraphs, I shall review three analytical sections to be included in the structured qualitative analysis:

1. Analysis of a country's structural economy, domestic and external.
2. Analysis of a government's policies, fiscal and monetary.
3. Debt and short term variables.

1. Analysis of a country's structural economy:

The analysis of a country's structural economy is achieved by analyzing the domestic economy (that is, GDP by sector and expenditure) and by analyzing the external economy (that is, the national account, export-import and transfers).

Analysis of the domestic economy:

Analysis of GDP by sector

The production factors (labor, capital and sources) and their employment in a certain country are the main determinants of the country's output or GDP. A country's GDP is the first and most used variable in evaluating its development stage and its ability to adapt to changes. Countries mainly depending on agriculture and natural resources (mineral or energy) are considered risky with respect to adaptation to shocks and changes (ex. Mexico's debt crisis in 1982). A well-established economy is the one depending mainly on industry and trying to improve it. According to this phenomenon, the developing

countries are being classified into Newly Industrialized Countries (such as Thailand, The Philippines, Malaysia and Indonesia) in addition to less developed and developed countries. Sometimes a country's development plan is considered when classifying its development degree.

Analysis of GDP by expenditure

The analysis of GDP by expenditure shows:

- The expected growth by analysis of investment and consumption.
- The size of private and public sectors in the GDP leading to the size of external finance (as previously shown in the model of investment and saving to GDP).

Good investment decisions are the main sources of GDP growth. Therefore; it is important in cases of high investment/GDP ratios to check for the growth rate of GDP and the right allocation to productive resources. The use of external funds for internal growth should be accompanied by a higher yield than the debt servicing requirements in order to have efficient investment and GDP growth. Open economies provide good investment opportunities by allowing free competition between imported and locally manufactured goods and services by the private sector leaving the infrastructure and main services for the public sector. (Rawkins, ed.Solberg, 1992, p:30-33).

Analysis of the external economy:

The external economic indicators show the effects of the slowdown in the world's economy on the borrowing country's economy. In other words it is a measure of the

degree of openness (exports-imports and availability of foreign exchange). The country's external economy could be examined by the analysis of the national account (trade analysis, transfers and capital accounts).

Trade analysis

An open country that enjoys a flexible structure could easily move towards tradable goods and increase its exports of goods and services. Exports are the main source of foreign exchange for external debt servicing. In order to avoid external shocks, it is important to maintain diversity in exports' markets and commodities. Imports, on the other hand, are the main way of consumption of foreign exchange. It could be a way to fuel inflation especially if a country is importing its food, energy or raw materials for industry. Developing countries' high imports could be due to the machinery and equipments used for development. To sum up, a trade deficit that results from imports of goods for development or industry and re-export will not be considered a danger while imports of non-essential goods might cause problems.

Transfers

Transfers are official or private. Official transfers are unilateral ones between governments. Private transfers are the workers' remittances.

Current account

The current account has two main functions:

- It summarizes the country's transactions with the rest of the world giving an idea of the income and expense situations.
- It builds a comparable rate of growth of foreign liabilities (assets) indicating a deficit (surplus). At the same time, the types of investments (productive or unproductive) of acquired money are taken into consideration.

By analyzing the current account figures, the analyst could have a clear picture of the future of the country's finance from foreign funds, its prospects of growth as well as its ability to repay its obligations. After inspecting the current account figures, the government policies (fiscal and monetary) should be taken into consideration to get a clearer view. (Rawkins, ed. Solberg, 1992, p:33-38).

2. Analysis of government policies:

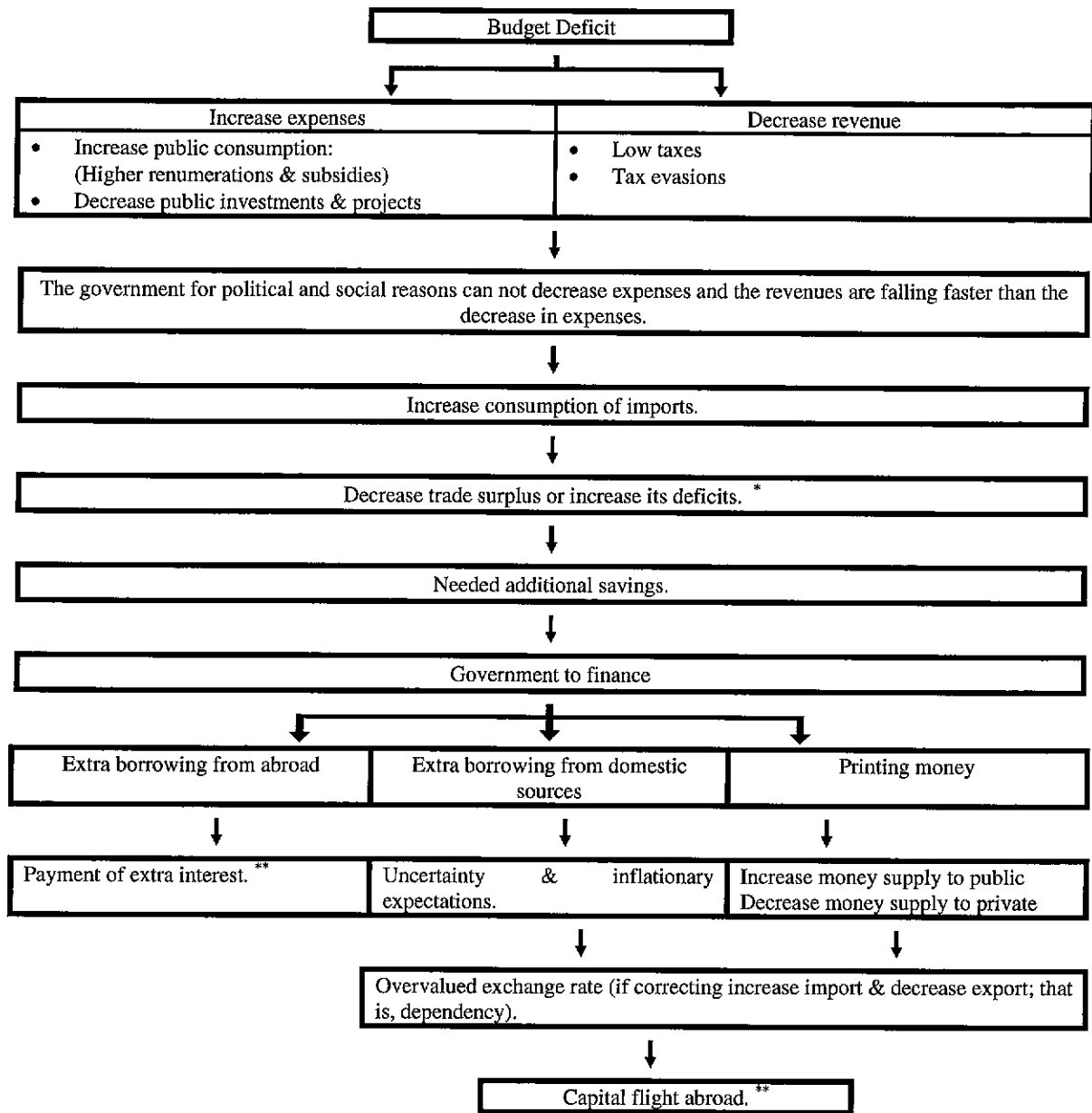
The government, facing balance of payment situations that need to be corrected, uses its fiscal and monetary policies' instruments. The fiscal situations are examined by matching revenues and expenses, generation of revenues and the effects of the government's policies on the country's economic situation. The monetary situations are examined by the money supply and aggregates and their effects on the country's economic situation. (Khambata and Ajami, 1994, p:195).

Generally, sound macroeconomic policies aim at long term goals such as economic growth with low inflation, mobilization of domestic savings, development of investment and maintenance of a good balance of payment position.

The following diagram gives an idea of the effects of some ineffective or unbalanced fiscal and monetary policies on the balance of payment (BOP).

In developing countries, budget deficit affects BOP. The expansions in fiscal terms increase expenses compared to output causing an increase in the consumption of imports. This situation results in: a decrease (increase) in trade surplus (deficit) and a need for additional savings to finance. The government could finance through borrowing externally or internally. If there is no access to the external market and there are no efficient internal secondary markets, the government would use a monetary tool and print the needed money. The results, as well as the double effects on the current account and therefore the BOP, are shown in the diagram. (Rawkins, ed.Solberg, 1992, p:39-42).

The Effect of budget deficit on current account and BOP



* Burden on the current account.

** Another burden on the capital account.

Diagram is based on the Analysis previously presented according to Rawkins.

3. *Debt and short term variables*

The previous analysis on the structure of the economy (internal and external) and the government policies enable an investor /lender to get a general idea of the country's qualitative situations. However, a lender needs to have a better idea of the country's debt size and services in relation to other variables. There are three ratios that are mainly considered in evaluating the debt size:

- Debt/GDP
- Debt/foreign exchange receipts from exports and transfers.
- International reserves/imports

Studies in 1980's on problem and non-problem debtor countries show:

A- Little difference between both sectors in debt /GDP ratios.

B- Wide differences between both sectors in debt/foreign exchange receipts ratios as non-problematic countries had better exports. (Rawkins, ed. Solberg, 1992, p: 45).

Keeping in mind the analysis conducted previously, that the growth in exports more than the growth in interest payments and debts' accumulation would improve the ratio (debt/foreign exchange receipts).

The structured qualitative reports (structured economy, government policies and debt terms) are essential for analysts to get a clear idea about a certain country. However, some investors need to compare countries in order to choose their investments' locations. Checklists (weighted and unweighted) would serve as comparable and quantified risk

measures of crossborder investments. Checklists' annual analysis reveals the relative changes in sovereign risks through time.

Checklists

A checklist lists almost all aspects of a country that could be used by analysts (investors or lenders) to take their decisions. The analysts inspecting these lists could foresee their chances of revenue, partial or complete loss. In the following section, I shall be presenting a table of the important variables in constructing a checklist. Some of these variables would be used in chapter 3 and later chapters to analyze the Lebanese situation.

The Eximbank held a survey that resulted in the following variables as the most used ones in the checklist systems. (Ciarapico, 1992, p:11).

I Domestic economy

- GNP
- GNP per capita.
- Growth in GNP per capita.
- Inflation rate
- Money supply growth
- Investment /GNP ratio
- Net budget position
- Income growth /fixed capital formation ratio.

II External economic variables

- Exports and exports' growth
- Imports and imports' growth
- International reserves.
- Reserves /imports
- Trade and current account balance.
- Debt service ratio
- IMF borrowings.
- Debt service payments.
- Principal payments/total external debt
- Gold/reserves.
- Trade /GNP
- Short term credit/total credit.
- Total external debt.

III Social and political variables

- Political stability
- International banking division's region rating.
- Past trend in unemployment.

Euromoney ratings

The Euromoney magazine ranks countries according to their perceived creditworthiness using various indicators groups. Moreover it indicates its projections for the country's expected growth rates during the coming years. In the following two paragraphs I shall present the Euromoney country risk assessment approach and the Lebanese position in this ranking.

The Euromoney assesses country risk through three groups of indicators; analytical, credit and market indicators. These groups contain nine indicators that are assigned different weights.

1- The analytical indicators bare 50% of the total weight and includes two sets of indicators each weighing 25%:

a- Economic data

b- Political data

2- The credit indicators bare 30% of the total weight and include three sets of indicators each weighing 10%:

a- Debt indicators

b- Debt in default or rescheduled

c- Credit ratings

3- The market indicators, access to international markets financing, these bare 20% of the total weight and contain four sets of indicators each weighing 5%:

a- Access to bank finance

b- Access to short term finance

c- Access to international bond and syndicated loan market

d- Access to discount on forfeiting. (Euromoney, Sep. 1994. P.380).

According to the Euromoney estimations and future projections in the same issue, the Lebanese score in risk assessment has improved by 74 places during two years (moving from 141 in Sep. 1992 to 67 in Sep. 1994) therefore scoring number one in countries showing an improvement.

The improvement in risk scores is due to several issues:

1. For the first time, data of Lebanese debts' statistics were included in their assessment process.
2. Economists' projections of the increased achievements of the Lebanese indicators.
3. The successful signs of Eurobonds issue by the Lebanese government.
4. The reopening of the Lebanese bourse and their confidence in regaining its role as a financial intermediary in the Middle East, Gulf and North Africa.

The Euromoney projections for Lebanon in 1995 is a growth rate of 8.75% of real GDP.

To sum up, part II of the literature review defined country risk assessment and listed its approaches. These approaches varied from fully qualitative to fully quantitative (Subjective to objective methods). The advantages and disadvantages of these systems were presented. Then the structured qualitative and unweighted checklists were presented in detail. Finally, the Euromoney approach to country risk analysis and the

Lebanese position in its scoring were presented. The next chapter will discuss the relevance of country risk for Lebanon.

COUNTRY RISK:**RELEVANCE FOR LEBANON**

This chapter presents the country risk relevance for Lebanon. An old saying “nothing ventured, nothing gained” governs this chapter. The application of country risk analysis to Lebanon requires two major definitions; the parties taking the risk and the risk issues in Lebanon. Therefore, the chapter is divided into two parts.

The first part analyzes suppliers (risk takers or claimants) that are combined in two groups:

1. Investors including Multinational corporations (MNC), offshore companies, subsidiaries and domestic groups.
2. Portfolio investors including domestic lenders, foreign lenders, country lendings and international organizations lendings.

The second part of the chapter presents issues of risk in Lebanon. These include; economic and political situations, taxation, GDP growth, currency, default risk, debt size, long term planning and moral hazards.

Part I: Parties taking the risk

This part of the chapter defines two parties of investors, the direct investors and the portfolio investors, taking the country risk and the reasons for their activities. Then each party would be further analyzed as to which investment kinds it contains and examples of such investments in Lebanon would be presented.

Direct investment:

Direct investments refer to the direct financial investments made by companies in foreign countries. The direct investments are mainly for the direct control over the company's funds. The levels of control in direct investments range from partial control, when the investors establish a joint venture to complete control in cases of entirely owned subsidiaries. Companies could also establish joint ventures with domestic or foreign firms or with foreign governments.

There are three main reasons for direct investments in foreign countries; profit, competition and control causes. The profits' advantages in direct investments are due to increased revenues by assessing bigger markets and due to decreased expenditures by addressing countries of efficient production facilities and larger economies of scale. The competitive advantages are achieved when the company discovers a new market or meets

competition in another one. The control advantages are fulfilled by saving their knowhows and controlling their quality production. (Khambata and Ajami, 1994, p.38).

Direct investment is achieved in various forms such as; Multinational Corporations expanding in foreign countries, offshore companies, subsidiaries and domestic groups investors. These companies are subject to the host country's systematic economic risks in addition to the country risk factors. The forms of direct investments will be defined in the following paragraph and supported by examples from the Lebanese economy.

1. *Multinational corporations*: this kind of investment has various definitions depending on its internal and external organization or its business operation policies or its decision making and management processes. One of the definitions according to Howard Perlmutter adopts the decision making criteria and multinational corporations are defined in terms of polycentric and geocentric companies.

“Polycentric organizations have investments, operations or markets in several countries, but do not integrate the management of these functions” however; “the geocentric organizations are integrated and have a world perspective regarding the breadth and reach of possible organizational operations.” (Khambata and Ajami, 1994, p:6). To conclude, the multinational corporations' definition could not be a precise one accounting for all the situations and the operations of the corporation, therefore various definitions are adopted by various groups. Examples of

multinational corporations in Lebanon are the Dallah Barakah group, Symons Corporation and Al-Mabani General Contracting group.

2. *Subsidiaries* are the companies in host countries that are fully owned (revenues and expenses) and controlled (production and knowhows) by a parent company abroad. (Khambata & Ajami, 1994, p:685).
3. *Offshore companies* are companies established in foreign countries for various purposes. The offshore companies could have the forms of:
 - International finance companies that are operated as financial intermediaries and offshore banks.
 - Licensing companies that operate certain royalties in the host countries.
 - International holding companies.
 - Captive insurance companies.

Examples of offshore companies in Lebanon are The American Life Insurance Co., the Showbiz and ABN-Amro Bank.

4. *Domestic groups* or firms; are business firms that identify their markets, suppliers, funds, personnel, products, marketing and distribution. They control and establish feedback mechanisms to improve their performances. (Khambata and Ajami, 1994, p:30). Examples of domestic firms in Lebanon are the INDEVCO group, Middle East Airways and the Interbrand group.

It is important to note that the domestic firms are subject to the systematic economic risks in their countries but do not face the country risk factors affecting the foreign investors.

Portfolio investments:

Portfolio investments are: “financial investments made in foreign countries. The investor purchases debt or equity with the expectations of financial return on the investment.”

(Khambata and Ajami, 1994, p:4). So the portfolio investors are not actually present in foreign countries (neither management and personnel nor products). There are four main reasons for portfolio investments (security and/or loans):

1. To extend in new locations and markets.
2. To design profitable actions in foreign exchange markets.
3. To achieve higher profits.
4. To avoid political risks in their home countries.

Portfolio investments have the following forms:

1. Foreign markets' securities such as bonds, notes, preferred stocks, commercial papers and certificates of deposits.
2. Foreign loans such as country lendings, institutional loans in normal and facilitated terms in addition to syndicated loans.
3. Foreign bank accounts especially when they enjoy bank secrecy laws and low taxes.

In the following paragraph, the relative portfolio investments in Lebanon would be defined with examples.

1. *Domestic lenders* are lenders participating in Lebanese Pounds T-bills issued by the Lebanese government. These lenders are the Lebanese and non-Lebanese residents in Lebanon and abroad who buy Lebanese Pounds T-bills.
2. *Foreign lenders* are lenders participating in foreign currency T-bills issued by the Lebanese government (currently, the US\$ bonds issued in Luxembourg). These lenders are also the Lebanese and non-Lebanese who buy dollar T-bills.
3. *Country lendings* are term loans, in regular or facilitated terms, granted to the Lebanese government. Among the country lenders to Lebanon are: The United States of America, The United Kingdom, Italy, the State of Kuwait, The Kingdom of Saudi Arabia, Germany, the United Arab Emirates and others.
4. *International organization lendings* are; the loans obtained by the Lebanese government or certain sectors in the Lebanese economy from international organizations or institutions. Among the institutional lenders to Lebanon are: the International Bank for Reconstruction and Development, the United Nations, Food and Agricultural Organization, the Organization of Petroleum Exporting Countries Funds and others.

It is important to note here that the absence of a Lebanese stock market prevents investments in preferred stocks as a kind of portfolio investments. However, when subscribing for SOLIDERE, about \$325 million were subscribed by Arabs but they could only get \$50 million due to the priority satisfaction by the Lebanese subscriptions.

According to various sources, the factors attracting investments (direct or portfolio) are:

1. Political stability.
2. Economic growth and future prospect.
3. Government regulations on foreigners and tax levels.
4. GDP growth and development levels.
5. Exchange rate stability.
6. The degree of creditworthiness.
7. Debt levels and the country's history in meeting its obligations.
8. Future plans and development outlook.
9. Moral hazard; ex-post contract operations.

These factors would be analyzed in part two of this chapter identifying Lebanese risk issues.

Part II: Risk issues in Lebanon:

Part two of the country risk relevance to Lebanon deals with the risks facing investors/lenders in Lebanon. According to the Eurobonds' subscription manual (1994), three main risk factors are considered in the case of Lebanon: internal and regional instability, macroeconomic instability and accuracy of financial and statistical information.

1. Internal and regional instability:

- The Lebanese economic future performances are considered in the view of a lasting internal political stability and regional peace agreements as well as absence of conflict.
- Lebanon has always respected its external debt obligations.

2. Macroeconomic instability:

The political and economic difficulties decreased the ability of the Lebanese government to use the traditional monetary policy tools. The government could not target the exchange rate or interest rate only. A kind of monetary discipline was used by the Hariri government to recover the economic growth. The effects of this discipline were reflected in the decrease of dollarization and the improvement in other economic indicators.

3. Accuracy of financial and statistical information:

The analysis of the Lebanese economy is seriously affected by the lack of the statistical and financial data. The Lebanese statistical office stopped operations in 1976. Currently, only monetary accounts and the government's fiscal operations are available with some gaps. The other financial variables; trade, BOP, inflation, GDP, unemployment and others are best estimates to be used by analysts, investors and lenders.

Generally, the statistical information gap constitutes the major problem in studying the Lebanese economy especially after the political (internal and regional) and the macroeconomic stability.

The internal political and macroeconomic risk factors will be reflected in some risk issues in Lebanon in this part of chapter three. The risk issues to be considered are: political-economic, taxation, GDP, currency, creditworthiness, size of debt, long term planning and moral hazards.

In this part, each risk issue is discussed according to the following framework:

- Definition of risk issues.
- The risk's effects on the claimants.
- The case of Lebanon.
- The present situation in Lebanon and the effects of changes.

1. Political - Economic

The political risk, to investors/lenders, could be summarized in the adverse actions by the host/borrower government towards the claimants. The economic risk, however could be summarized by the effects of change in growth rates on claimants. This section presents:

- The effects of political and economic situations on claimants.
- The risks to claimants.
- History and overview of the Lebanese political issues.
- History and overview of the Lebanese economic issues.
- Comments and current performances.

The brief overview of the political situation in this section would frame the background of the forthcoming detailed and projected analysis of the economic situation. While, the economic analysis in this section would present the corner stone for the detailed analysis of major economic risk indicators in Lebanon.

Political effects on debt repayments and profit repatriation:

Political instability and/or continuous change in the political system have direct and indirect effects on debts' repayments. The direct effect is the unwillingness of the government to repay its due. The indirect effect is via the changes in the country's economic growth, imports dependence, inflation and some other secondary factors. The negative changes in these factors lead to shortages in foreign currency and therefore debt

problems. The same effects could cause profit repatriation problems to investors. (Burton and Inoue, 1987, p:496).

Economic effects on debt repayments and profit repatriation:

The economic slowdown or negative growth due to political instability, loss of confidence or stagnation has the same direct and indirect effects on debt problems and investors' profits.

Political and economic risks on lenders and investors

Political risk

The political risk effects, other than war damages and problems, are:

- 1- On debt, rescheduling or refrain from payments.
- 2- On foreign investment;
 - A- Profit repatriation and price control problems.
 - B- Ownership and personnel restrictions.
 - C- Import (for foreign direct investment) restrictions.
 - D- Discrimination in government businesses.

Economic risks

The economic risks could be summarized in two words "ineffective investments" and its results.

1. The debtors' concern is in the productive investments of their loans that yields enough funds for the borrowers to respect their obligations.
2. The investors are also concerned by the business climate in their host countries. Testing for growth and industrialization prospects of the country. The growth in economic indicators (past, present and projected future) indicates a good market for investors' goods and services.

The case of Lebanon

Overview of the Lebanese political history

This paragraph presents an overview of the Lebanese political history in ten points (major important dates):

- 1516-1918: Ottoman Empire rule in Lebanon.
- 1920: Definition of a state called "Greater Lebanon" and the French rule.
- 1943: Independence of the Lebanese republic.
- 1945: Lebanon was a founding member of the Arab League.
- 1975: The outbreak of internal war due to regional and internal conflicts and instabilities. Many rounds of war and two Israeli invasions resulted in large losses in the human sector (death and emigration), infrastructure, government authorities and so on.
- 1976: "The Arab Deterrent Force" was sent by the Arab League to restore security upon the request of the Lebanese government. The Force was composed of Arab

nationals, mostly Syrians. The Force, still in Lebanon, is currently composed of Syrian troops only.

- 1982: An Israeli invasion of the republic resulted in the occupation of a southern strip. The southern region is still under occupation despite the United Nation Security Council resolution 425 demanding the unconditional withdrawal of all Israeli troops from south Lebanon.
- 1989: Signature of the reconciliation agreement in Saudi Arabia “Taif Agreement”.
- 1990: The actual cessation of military conflicts.
- 1992: The first parliamentary elections were held (after 20 years) and the appointment of the “Hariri government”. (Preliminary Offering Circular of \$ Bonds, 1994, p:11-13).

The political system:

Lebanon enjoys a parliamentary democratic constitutional system. The Taif agreement, in a way of political reform, called for a two-step movement: “a balanced sectarian political power and then the elimination of sectarian political system.” (Preliminary Offering Circular of \$ Bonds, 1994, p:14).

The Lebanese political system separates the powers of legislation and supervision (control). This system is made of three branches:

A- The Executive branch constitutes:

1. The President: a Christian Maronite.
2. The Cabinet: headed by the Prime Minister, a Muslim Sunni.

This branch sets the policies and provides potential legislations to the legislative branch.

B- The Legislative branch constitutes of: the Parliament headed by the Speaker, Muslim Shiite.

This branch promogulates the laws and controls the executive branch's policies.

C- The Legal branch that reflects the rule of various nations in Lebanon and especially the French laws and rules. (Preliminary Offering Circular of \$ Bonds, 1994, p:13-15)

Overview of the Lebanese economic history:

- Lebanon was classified as a lower middle income country in mid-70's. Between 1960 and 1974, the GNP per capita was growing at 3% annual rate. Recently, the UN estimated the 1995 GNP per capita by 1650\$.
- The 1974-1990 conflict resulted in:
 - Lower per capita income and declining GNP.
 - Damaged infrastructure.
 - Loss of skilled personnel (death and emigration).
 - Erosion of confidence in the Lebanese rule.
 - Appearance of parallel and underground economies that decreased the government revenues and were not included in the country's GNP.
 - Increase in the government budget deficits due to increased expenses and decreased revenues.

- Deficit financing by money printing and internal public debt led to inflation, dollarization, depreciation of the Lebanese Pound and capital flights.
- 1991 witnessed an economic recovery that was reflected in higher GDP, lower inflation, capital inflows and BOP surplus due to export recovery.
- January-September 1992: A stagnation period with currency depreciation, deficit financing through money printing, capital outflow and inflation.
- October 1992: The appointment of the Hariri government restored the Lebanese confidence in their economy. That was reflected in: lower inflation, Lebanese Pound appreciation, less dollarization, capital inflow and increase in the Central Bank foreign reserves to preserve the Lebanese Pound. The new government started working on reconstructing its financing resources (increase revenues and decrease expenses). Since then the macroeconomic system was regaining its stability.
- 1994: The confidence in the Lebanese economy was evident in the over subscription in the shares of SOLIDERE (The private company of reconstruction of the Beirut city center). Later on, the success of SOLIDERE shares reflected the increased confidence in the economy.

(Preliminary Offering Circular of \$ Bonds, 1994, p: 16-19).

- October 1994: The success of the Lebanese government in issuing the Eurodollar bonds at a reasonably fair interest rate reflects the international confidence in the Lebanese economic and political situations.

- The recent developments in the Lebanese economy in various sectors will be discussed in the risk issues presented later, as well as, the performance of these indicators between 1989 and 1993.

The economic system:

The Lebanese economic system was of high standards in the 60's and early 70's. Lebanon enjoyed a developed infrastructure, highly educated and skilled population, well-organized trade and a successful financial system. These features promoted a steady economic growth mainly in the services sector. The manufacturing sector also contributed to the economic growth. At that time, Lebanon was a center for the Middle East financial services thanks to its strong banking sector (covered by bank secrecy laws) along with its free trade system. Tourism had a great role in the success of the services sector.

Lebanon enjoyed its economic growth due to its free economic system that constitutes:

- Market determined prices of goods and services.
- Free exchange rate system, trade and investment policies (private and foreign).
- The public sector concern of infrastructure and public utilities allowing the private sector to freely take part in the economy.
- Strong links with developed world in the economic activities.
- The republic's enrollment in many trade agreements. (Preliminary Offering Circular of \$ Bonds, 1994, p: 16-18).

Comments and current performances:

The following analysis concludes the political-economic section by presenting:

1. The solutions to the risks facing the claimants due to the political and economic factors.
2. The current government policies in reconstructing the Lebanese economy.

The incentives of investment in Lebanon (political-economic):

Lebanon is seeking rapid economic growth, since the stop of the political conflicts and the restored confidence in the Lebanese rule. This is reflected in its ten-year economic plan. The rapid growth projections restore the confidence of the foreign lenders and investors in Lebanon as:

1. According to a law decree, signed by President Elias Hrawi and Prime Minister Rafic Hariri on 30 December 1993, Lebanon is a member in "The Multinational Investment Guarantee Agency" (MIGA). MIGA was established in 1988 by the World Bank to insure against political risk in developing countries. (Official Gazette, 6 Jan. 1994)
2. The encouraging free economic system in Lebanon (free trade, exchange rate and personnel movements).
3. The government's appreciation of technologies and their demand of foreign investors' bids to reconstruct the infrastructure.
4. The growth projections could insure productive investments of borrowed funds and could attract foreign investors' capitals. The funds would be used for technology implementation, industrial investments in goods and their related services.

The current government policies:

The confidence in the “Hariri government” led to economic growth and macroeconomic indicators' stability. The government turned to reconstruction and set a future plan. The current government policy is:

1. Reactivate the private sector's role in the development and reconstruction of productive sectors (services, industry, real-estate, banking, ... etc.)
2. Maintain the free economic system.
3. Maintain the public sector's role in essential services and infrastructure. (Preliminary Offering Circular of \$ Bonds, 1994, p:18).

2. Taxation

Taxes are the individuals' and businesses' contributions to their societies. Taxes are collected by the governments according to certain rules and regulations and are then used for social services. Taxes are of two types; direct and indirect. The direct taxes are levied on income, payrolls, social security and corporate incomes. The indirect taxes are the ones levied on properties, sales, trade and value added taxes.

In Lebanon, both tax rates are low. An additional decrease in direct taxes was employed recently to encourage investments. On the other hand, fines and fees as sources of non tax revenue were increased to match the expenses of the government's public services.

Tax systems are set and regulated by the governments on the local and foreign businesses operating in the country. The tax systems could affect the operations of foreign companies in the following manners:

1. High tax rates that take a great proportion of the foreign investors, profits.
2. Complicated tax systems that cause accounting systems problems and difficulties.
3. Apply extra taxes on profit's repatriation.

Countries favoring (opposing) foreign businesses in, tax foreign investors lower/equal (higher) than domestic ones. In the following section, the Lebanese regulations on MNCs, offshore, holding companies and Lebanese bond holders are presented.

Taxation of MNCs in Lebanon

The Lebanese tax rates are equal in cases of Lebanese companies and multinational companies operating in Lebanon. The tax rates mentioned below are the latest ones published in the Official Gazette on 1 January 1994 by the Lebanese government. These rates are highly adjusted from the old tax rates. The tax laws, amended on 30 December 1993, are encouraging for both foreign and local investors in Lebanon. Three types of taxes are applied on MNCs; profits of professions, payrolls and income of movable capitals.

1. Profits of commercial, industrial and non-commercial professions:

These taxes range between 3% on amounts $\leq 7,500,000$ LP and 10% on amount $\geq 37,000,000$ LP. The tax rates are also reduced to half on profits of some erecting and rebuilding of real estates.

2. Salaries, wages and pension funds:

Tax rates paid on the net profits of tax payers range between 2% on amounts $\leq 5,000,000$ LP and 9% on amounts $\geq 75,000,000$ LP after deduction of certain amounts concerning physical situations and family status.

3. Income of movable capitals:

The revenues from movable capitals are taxed at 5%.

Taxation of offshore companies:

The offshore companies are subject to the same laws governing the Lebanese joint stock companies within their permitted operations. The tax rates according to the amendment on June 24, 1983 are:

1. Companies profits are subject to lump sum tax.
2. Payrolls and added values from the company's assets in Lebanon are subject to income tax laws.
3. Contracts signed by the offshore company in Lebanon, related to its activities outside Lebanon, are stamp duty exempted.
4. Dividends are exempted from taxes on income from movable capitals.

Taxation of holding companies:

Holding companies are exempted from income taxes. An annual lump sum tax of 0.5-1.5 per thousand is levied on the capital value and reserve funds to certain ceiling amounts. Interests on loans, management charges and rentals received by the company are subject to taxes.

Taxation of government bond holders:

1. Foreign currency lenders (including bond holders) to the Lebanese government or public sector entities are exempted from Lebanese income tax. (Law amendment 1978)
2. Bondholders are also exempted from Lebanese taxes on capital gains.

3. Bondholders (who are non-Lebanese residents) are exempted from Lebanese inheritance taxes.

4. Bondholders are not liable to any stamp duties, registration fees or taxes in Lebanon. (Preliminary Offering Circular of \$ bonds, 1994, p:45).

The Lebanese government is trying to increase its income from taxes as well as encourage foreign investments to rebuild the country. Two major steps were employed to achieve these objectives; fight tax evasions and employ moderate tax systems.

In trying to improve the tax income despite the decrease in tax rates, some laws to capture tax evadors and preserve the government's rights are imposed:

- A- Employ new techniques and technologies.
- B- Improve personnel skills (administrators and collectors).
- C- Update their information (registers and values).
- D- Speed up collections (else fines are imposed).

These improvements along with the decreased tax rates will generate higher tax revenues than the previous ones as well as improve public services and investments.

Generally, the tax laws presented are the current ones that are far reduced, simply organized with few exemptions, no profit repatriation taxes are applied and the system is easily managed and monitored. These improvements were done by the government to encourage investments, attract foreign capitals and create businesses to help increase GDP and fund the reconstruction plan.

3. Growth of GDP

This section presents the Gross Domestic Product (GDP) and its trends as a risk issue considered by the investors/lenders. The framework of the analysis in this section: definition of GDP followed by the problems facing the investors/lenders. Then the case of Lebanon is analyzed (sector and expenditure analysis) followed by the comments on the development situation.

Definitions:

The Gross Domestic product is the measure of the market value of all financial goods and services produced in a country in a year. The nominal values of GDP are not as important as the growth rates in real and nominal GDP. The realized (past) growth trends and the expected (future) growth trends in GDP reflect the country's development levels. Countries planning for fast growth rates, compete efficiently by increased industrialization. This is done by efficient usage of their resources, employing modern technologies and industrial facilities to increase their exports and increase their openness. (Khambata and Ajami, 1994, p:190).

As was mentioned in the literature review, the level of industrialization is used to classify the country's development levels. The World Bank had developed another measure to classify countries' development. This classification depends on the level of per capita income. According to the World Bank's classification, Lebanon is a middle income

developing country (income range per capita: US\$ 545-5999). (Khambata and Ajami, 1994, p:188).

Problems facing the investors/lenders:

1. Unproductive investments of borrowed funds that yield low or negative returns.
2. Countries of low per capita income and those that depend mainly on agriculture could form a good market for industrialized goods. Despite the raw materials and personnel availability, the lower developed countries might lack the fundamental infrastructure necessary for foreign investors to operate. (Khambata and Ajami, 1994, p:192).
3. Underground economies threaten the investors' businesses and cause moral hazards to the lenders. However, these funds are not counted in the GDP.
4. One major problem facing foreign investors/lenders in Lebanon is the absence of reliable data on the country's output levels.

The Lebanese case:

Analysis of GDP by sector:

The Lebanese economy experienced several depressions during the war. However, it is showing signs of strength. Table 1 presents the sectorial contributions to GDP in various years in the Lebanese economy history. The services sectors include: commerce, financial and non financial services and general administration. The goods' sectors include: agriculture, industry and constructions. The services sectors had higher contributions than the goods' sectors, to GDP in selected years in the period 1954-1990.

This is also illustrated in the graph. The highest contributions to the services sectors were from areas

Table 1: Sectorial contribution to Gross Domestic Product

A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*
1954	18	13.2	4.8	29.3	24.4	4.5	5.8	100 %	36	64
1964	11.9	12.8	5.6	32.1	24.4	3.4	9.8	100 %	30.3	69.7
1974	9.2	16.6	4	30.6	26.9	3.8	8.9	100 %	29.8	70.2
1988	10.6	20.5	10	28.1	17.5	8	5.3	100 %	41.1	58.9
1990	7.2	14.3	7.1	28.3	19.2	8.7	15.2	100 %	28.6	71.4

A: Year

B: Agriculture

C: Industry

D: Constructions

E: Commerce

F: Non financial services

G: Financial services

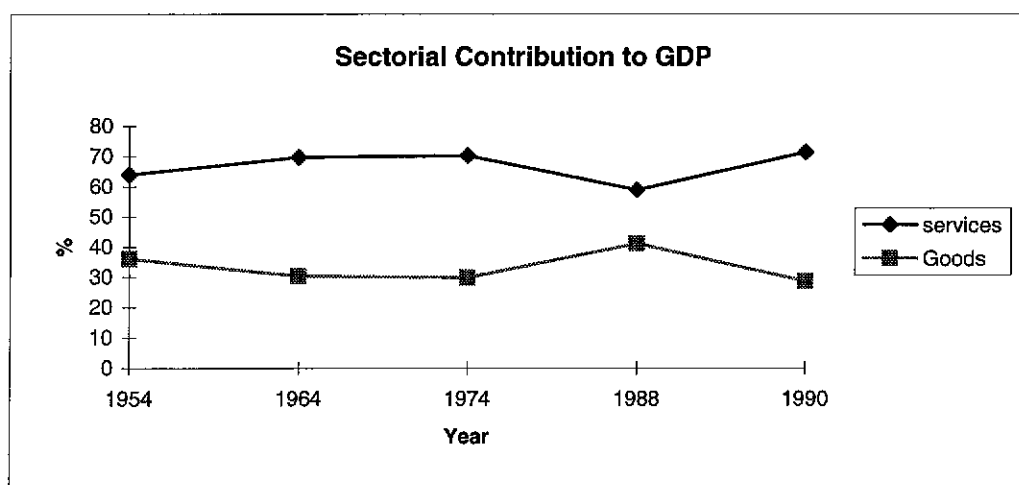
H: General Administration

I: Total

J: Total Goods' sector contribution. (= B+C+D).

K: Total Services' sector contribution. (= E+F+G+H).

Source: Table in the Annual Report of The Banks' Association.



of commerce and non-financial services including tourism. The highest contributions to the goods' sectors were from the industry. The decreased contribution of agriculture to GDP was reflected in the increased contribution of the industry, indicating more industrialization.

Analysis of GDP by expenditure:

This analysis leads to the estimations of the private sector's role in the economic growth and sources of financing in growth (as was mentioned in the savings and investment model in the literature review).

Table 2: Analysis of investments and savings to GDP, presents GDP analyses by expenditure in selected years in the period 1964-1992. The investment/GDP ratio was increasing in the period of study. However, the savings had positive contributions to GDP before and during the war and negative ones after the war. As Lebanon had trade deficits during the study period, the domestic investments were greater than the domestic savings. This situation indicated a foreign source of finance, that could be translated into foreign grants and transfers or internal financing by debt accumulation or money printing.

Table 2: Analysis of Investments and Savings to GDP

A	*B*	*C*	*D*	*E*	*F*	*G*
1964	230	218	12	1042	0.22073	0.01152
1972	425	243	182	2087	0.20364	0.08721
1988	957	800	157	3209	0.29822	0.04892
1991	1290	2720	-1430	3400	0.37941	-0.42059
1992	1697	3300	-1603	3771	0.45001	-0.42509

A: Year

B: Investment (Million \$).

C: Trade Deficit (million \$)

D: Savings (million \$). Savings = Investment - Trade deficit

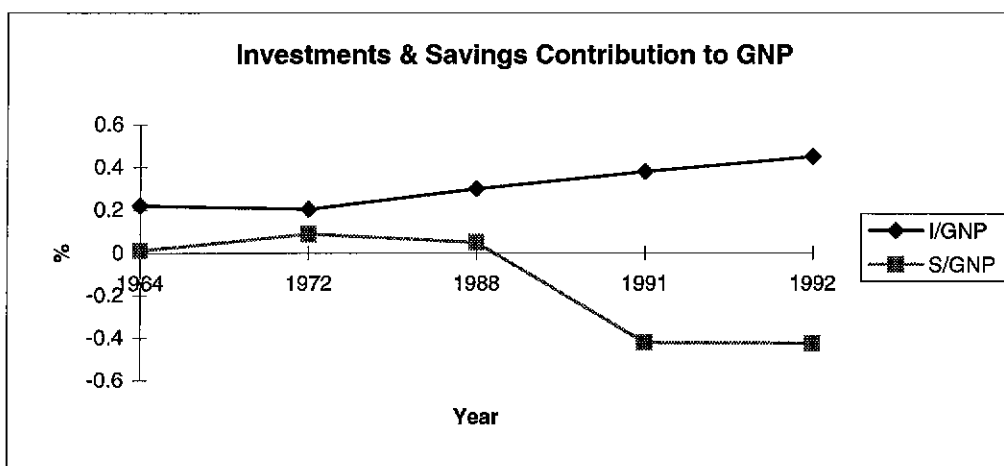
E: GDP (million \$).

F: Ratio of investment to GNP

G: Ratio of savings to GNP

Source: Banks' Association Report (1993).

GDP are estimations by various sources reported in the Banks' Associations reports



Level of development indicators:

The level of development indicators are some indicators used by the investors/lenders to set a certain level of development for a certain borrowing country among others. The country is expected to pass a minimal level of requirements set by the investors/lenders. Growth trends and future plans of development are considered also when setting the level of development. Three main indicators are used by the analysts in this case: GDP per capita, GDP figures and the level of industrialization and capital formation from domestic resources. The first two indicators in addition to inflation are analyzed in table 3:

- GDP figures were increasing in nominal terms in the period of study (1989-1993). However, real GDP figures (in prices of 1964) had negative growth rates for the years 1989,1990 and 1992.
- GDP per capita figures had positive growth rates in the study period.
- The inflation figures experienced positive rates in the study period. It had negative growth rates in 1989-1991, a high increase in 1992 and another decrease of 93% in 1993 figures over 1992.
- The level of industrialization was mentioned before in the sectorial contribution to GDP. Industry had the highest contribution among the goods sectors to GDP.

Table 3: Analysis of GDP, Inflation and Per Capita Income

A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*
1989	1081	81377	143.5	-7%	13.288	-58%	3.66	295437	0.3%
1990	1399	172240	111.7	-22%	8.119	-39%	3.74	373930	27%
1991	4297	228993	32.95	-70%	18.764	131%	3.83	1121880	200%
1992	9499	528973	131	298%	17.957	-4%	3.93	2417048	115%
1993	13122	574466	8.6	-93%	22.842	27%	3.70	3546486	47%

A: Year

B: GDP (Billion LP).

C: CPI, base 1964.

D: Inflation = % D in CPI

E: Percent change in inflation.

F: Real GDP in prices of 1964 (million LP), (= GDP/CPI).

G: Percent change in RGDP.

H: Population(million)

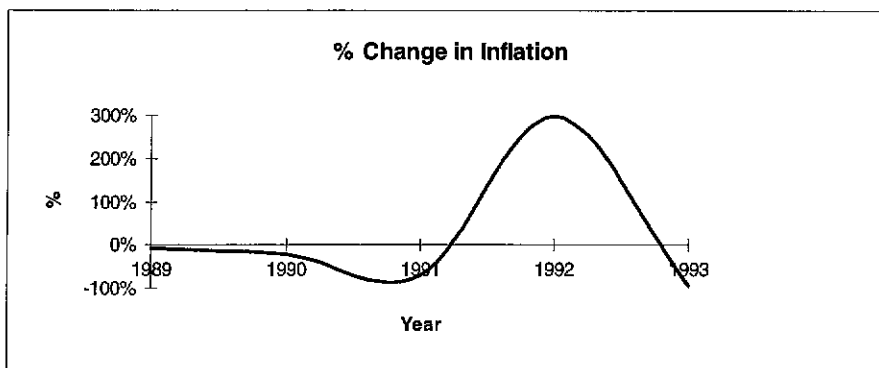
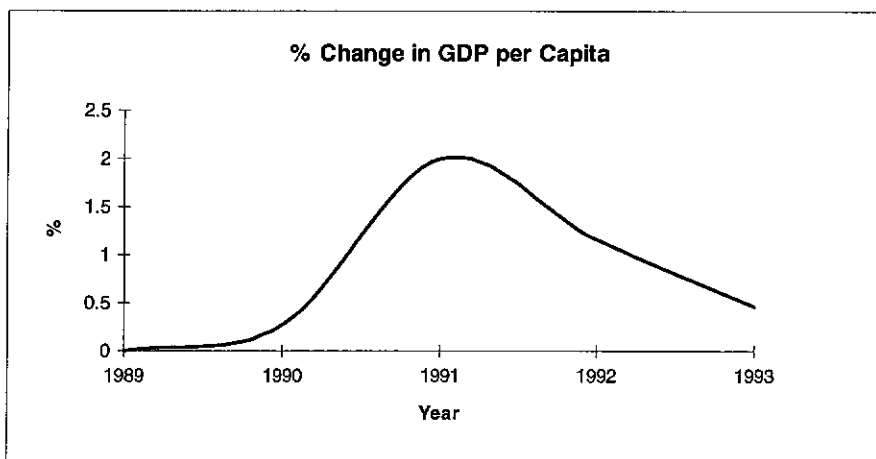
I: GDP per Capita. (LP)

J: Percent change in GDP per capita.

Source:

Data for 1989-1991; best estimates according to studies reported in the Central Bank's bulletins.

Data for 1992 & 1993; Ministry of Finance.



Comments:

The investors/lenders observing the growth trends in GDP and inflation in Lebanon are able to identify the Lebanese market size and accessibility to the Arab markets in addition of the industrialization and development levels.

- The growing trend of GDP per capita indicates more resources availability for investment, growth and higher economic achievements.
- The movement towards industrialization indicates more development.
- The laws and regulations set to control the underground economies would decrease these activities.
- The plan set for productive investments in reconstruction and development would yield good returns to service debts and decrease the budget deficits.
- The activation and modernization of the Lebanese statistical centers would result in better estimates and more reliable data sets.

4. Currency

The trends in domestic currencies are another area in the considerations of foreign investors/lenders. This section will define the purchasing power risk, then present the risks facing the investors, the Lebanese dollarization situation and finally the current Lebanese situation.

Definition of purchasing power risk:

The fluctuations in the purchasing power of assets real (not nominal) income and/or prices are referred to as purchasing power risk. This kind of risk is undiversifiable when dealing with monetary assets such as cash, bonds, saving accounts and so on. The risk is diversifiable when dealing with real assets such as real estates and minerals. So a good idea is to balance risks and real rates of return in diversified portfolios of real and monetary assets.

There are many economic indicators that affect the currency's purchasing power. These indicators, according to the Purchasing Power Parity, are the money supply, GNP and a factor capturing the types of money velocity habits relative to other country's currency. Other factors affecting exchange rate are the real interest rates, expected inflation, political situations, expected growth in a country's economic indicators as well as official interventions and statements.

According to the International Fisher Effect, a currency maintains its purchasing power as it depreciates (appreciates) by an amount equal to the increase in domestic (foreign) inflation over foreign (domestic) inflation. The changes in inflation are reflected in the nominal interest rates. The nominal appreciation, or over valuation, of exchange rate due to inflation affects exports and therefore the trade balance.

Risks facing investors:

The foreign investors face many problems concerning investing in domestic currencies:

1. The depreciation of the investee currency causes lower revenues in the investor's home currency.
2. The difficulties in forecasting exchange rates and their future trends in developing countries. As well as, the absence of hedging instruments of the currencies of these countries.

Some countries set administered exchange rates for profit repatriation of foreign investors.

The Lebanese dollarization case:

The analysis of the Lebanese Pound trends in the years (1982-1993) is presented in table 4: Analysis of exchange rates and deposits in Lebanese commercial banks. The inflation figures shown in the table indicate that the highest inflation rate witnessed by the Lebanese economy was in 1987 after which the inflation figures had lower positive amounts. The years 1987-1988 were considered as the years in which the dollarization

Table 4: Analysis of Exchange rates & Deposits in Lebanese Commercial Banks

A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*
1982	32.2	13.3	45.4	13.8	4.7		0.41			
1983	41.1	16.8	58.0	7.2	4.5	-4%	0.41	27%	28%	28%
1984	48.4	25.2	73.6	14.8	6.5	44%	0.52	50%	18%	27%
1985	72.6	44.8	117.5	54.3	16.4	152%	0.62	78%	50%	60%
1986	92.1	244.5	336.7	95.2	38.4	134%	2.65	445%	27%	187%
1987	122.4	1465.9	1588.4	487.6	224.6	485%	11.98	499%	33%	372%
1988	452.9	1784.7	2237.6	127.9	409.2	82%	3.94	22%	270%	41%
1989	794.3	1646.7	2441.0	48	496.7	21%	2.07	-8%	75%	9%
1990	994.6	2769.2	3763.8	62.8	701.8	41%	2.78	68%	25%	54%
1991	1739.2	3741.0	5480.2	50	928.2	32%	2.15	35%	75%	46%
1992	3696.9	8371.4	12068.3	139.93	1711.1	84%	2.26	124%	113%	120%
1993	4745.1	11056.7	15801.7	8.6	1713.0	0%	2.33	32%	28%	31%

A: Year

B: Deposits in Lebanese Pounds (Billions)

C: Deposits in Foreign Currencies (Billion LP.)

D: Total deposits in Billion LPs.(B+C)

E: inflation rate

F: Average exchange rate for the period

G: % change in average exchange rate.

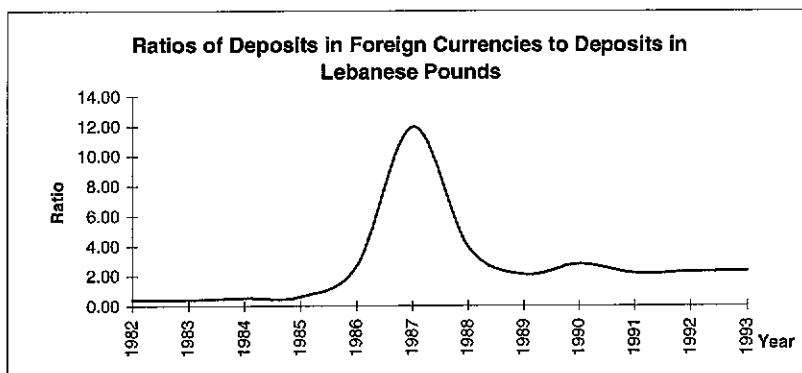
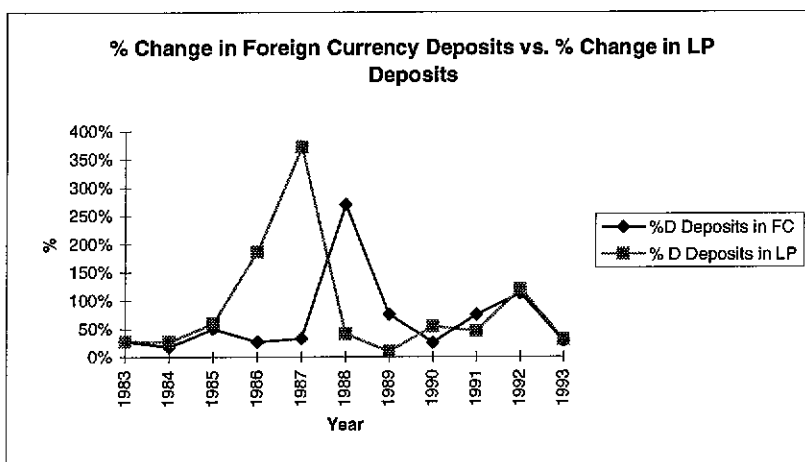
H: ratio of Dep FC/ Dep LP [=C/D]

I: %change in deposits in foreign currencies.

J: % change in deposits in LPs.

K: % change in total deposits in LPs.

Source: Central bank Bulletins



phenomenon began. Until 1992, there were many reasons for this movement such as: the lost confidence in the Lebanese authorities, the expected inflation, the largest bill then was the 10,000 LP, highest and smallest services were priced in US dollars and the LP was depreciating. At that time, the new and big projects were financed in foreign currencies. For example, SOLIDERE; the company of reconstruction of Beirut offered its stocks in US dollars. SOLIDERE's brochure stated that the dollar pricing of its shares was due to the accelerated depreciation of the Lebanese Pound at the period when the project's legislations were put. The dollarization movement could be noticed by the analysis of the deposits in the commercial banks.

The Lebanese commercial banks accept different kinds of deposits from residents and non-residents in Lebanese Pounds (LP) and foreign currencies (FC). The analysis (in the same table) of deposit amounts in the Lebanese commercial banks between 1982 and 1993, shows:

- In the period 1983-1987, the deposits in foreign currencies were growing at a rate faster than those in Lebanese Pounds. In 1987, the year of highest inflation rate, deposits in foreign currencies were about 12 times those in Lebanese Pounds.
- In the period (1988-1992), deposits in foreign currencies continued growth but at a moderate rate and were about 2.6 times those of Lebanese Pounds on average.
- October 1992, was an important date in the Lebanese economic considerations, the nomination of Mr. Rafic Al-Hariri as a Prime Minister revived the Lebanese confidence in their economy. The Lebanese had the expectations of the ability of the

man to attract foreign funds. The increased confidence was reflected in: the increase in the deposits of the commercial banks (120% increase in 1992 total deposits over 1991), the increase in the demand of T-bills by commercial banks and the signs of the administration of long term loans to the private sector.

- 1993, witnessed almost the same growth rates in deposits of foreign and local currencies.
- The average exchange rates given in the table show that the Lebanese Pound experienced a continuous depreciation over the period of study until it could maintain its exchange value in 1993. The average exchange rate for 1994 was 1\$ = 1640 LP indicating a 4% appreciation compared to 1993.

To conclude, the deposits in the Lebanese commercial banks were moving from Lebanese Pounds to foreign currencies until 1992, despite the higher nominal interest rates paid on the deposits in Lebanese Pounds at that time. The decrease in inflation rates and the appreciation of the Lebanese Pounds indicated more confidence in the Lebanese economy that was reflected in the similar growth of both kinds of deposits in 1993.

According to Shahin (1992) in his book, Money Supply and Deficit Financing in Economic Development:

“Monetary discipline requires usage of monetary policy tools effectively based on the characteristics of the financial market.” (P:133).

Lebanon, as a developing country getting into peace and regaining confidence in its rule, moved towards monetary discipline in wide steps as:

1. The political scene was gradually improving.
2. The coordination of the Ministry of Finance and the Central Bank, the first trying to decrease the deficit and the latter trying to stabilize the exchange rate, would lead to price stability. These acts gave an optimistic stable future to the Lebanese Pound.
3. The deficit was decreasing.
4. The country was preparing for a financial market for secondary financial dealings.

The Lebanese current situation:

The monetary discipline followed by the Hariri government seemed to be effective in the results of 1993 as:

1. The Lebanese Pound maintained its exchange position with zero percent change between 1992 and 1993. It even experienced an appreciation of 4% in 1994 over 1993.
2. The inflation rate decreased.
3. The decrease in interest rates encouraged borrowings and investments by the private sector increasing at the same time the job opportunities.

The optimistic investment situation prevailing in Lebanon, reflected in the increasing constructions and developments despite the prevailing Middle Eastern political concerns, has already attracted some foreign funds. However; foreign investors spend a great effort in estimating the exchange rate of the investee country. The traditional diversification tools (forwards, futures and options) in case of currency risks are not available for lower

developing countries' currencies. A newly designed hedging tool, the Asian Tunnel Fund, could be used in contracts to hedge for the changes in the Lebanese Pound. Moreover, the Lebanese system enjoys free exchange rate without any extra obstacles on foreign investors profits repatriations.

5. Default (Credit Worthiness)

The default or credit risk is the financial risk reflected in the variability of return on securities. When a company (country) dishonors a scheduled payment of interest or principal, the company (country) is considered in default on that due. Financial services are held by specialized organizations that establish quality ratings (for firms and countries) for local and foreign investors (lenders) to choose the profitable projects that fit in their portfolios.

The credit analysis by financial organizations (or by lenders and investors on their own), work in the framework of mainly 5Cs. These Cs are: character, capacity, capital, collateral and conditions referring to (respectively): information and willingness to repay, cash flow availability, balance sheet networth, guarantees and the influence of external situations such as economics and politics. (Sinkley, 1992, p: 528).

The first 4Cs (character, capacity, capital and collateral) could be analyzed in two rating factors:

1. The ability to pay, is realized by the ratio analysis conducted on past and present situations and used for estimations of future earnings to fulfill their obligations. It is also realized through loans' interests and/or principals; interests on bonds and dividends on stocks.

2. The willingness to pay is realized by inspecting the strengths of the legal actions in cases of default. The borrower prefers respecting his/her obligations in case default penalties are higher than the debt servicing costs.

The fifth C, conditions, is analyzed in terms of external prevailing economic and political situations. The problem of default is increased by the following conditions:

1. The tight monetary policies by governments (tight international credit conditions), by increasing interest rates (loan rates) causing fewer investments by small investors (chances of reborrowing) and less financing ability indicating more chances for insolvency and as a result; default.
2. The economic business cycles; a recession means less production indicating less income and more default probability.
3. The change in the country's political frame could impose new pressures on debt repayments.

The economic and political conditions increasing default probabilities are systematic ones that apply to the whole economy adding to the individual firms' already existing unsystematic default risk.

A general solution for default risks is to diversify by investing in the default free T-bills. Another precaution carried out by investors (lenders) is the premium required above the assumed risk free rate of the government T-bills.

The review of the previous Cs indicates the negative effects of the deterioration in the unsystematic factors, character; capital; capacity and collaterals, on the default probability.

The default probability requires the addition of a premium (mark up) to the risk free rate in order to compensate for the default risk. The following model taken from Sinkley (1992) would be used to examine the expected default probability by the international lenders on the borrowers (bond issuers).

If: d = the expected probability of loan default (measured by the four Cs under the prevailing economic and political conditions).

Then: $1-d$ = the expected probability of loan repayment.

Assume: r = risk free loan rate (= loans' funding and non funding costs + profits)

R = risky loan rate (= r + mark up).

Then: $R > r$, if $0 < d < 1$ and $R = r$, if $d = 0$.

Now; the risky rates applied to the probability of payment must equal the risk free rate returns.

$$(1+R)(1-d) = 1+r \quad \rightarrow 1$$

Rearranging terms:

$$es-d = 1 - [(1+r)/(1+R)] \quad \rightarrow 2$$

In an article by Burton and Inoue (1987), published in the Applied Economics Journal, the most used factor by bankers to estimate the country risk was studied. Three simple

regressions were carried to determine the dependent variable. The simple regressions were carried on using: loan amounts, average loan maturities and spreads over LIBOR as dependent variables. In each case, the country risk ratings by the Institutional Investor were used as the independent variable.

The cross sectional analysis was conducted on data of 36 LDC countries. The results showed high R^2 (= 0.6581) and high statistical significance for the spread over LIBOR indicating that the interest rates' differentials are the most proper variables forecasting country risk. (P:493).

The Lebanese government, as a part of its reconstruction program costing \$11,200 million, has presented to the Parliament a request to raise \$1,700 million in Eurobonds. On October 1994, a formal contract was signed in Beirut with Merrill Lynch as a lead manager. The contract is of \$400 million in Eurobonds to be raised in the international financial markets. The bonds are listed in Luxembourg. The funds raised are deposited in a New York bank account of the Lebanese central bank. This project was considered a step towards international markets as few years before, Lebanon could not borrow even \$1 million in the international markets. International investors knowing very well how to invest their funds, would not risk their money if they were not sure of returns. Shortly after its listing in the financial markets, the Lebanese Eurobonds had increased in price implying a decrease in interest payments (from 10.8 - 9.33%). Any way, it is a sign of improvement!

Borrowing money through bonds is a sign of strength. In an attempt to analyze the default percentage associated with the Lebanese bonds, I shall apply the default model previously presented.

Assuming: r = The US bond rate = 7%.

R = The Lebanese bond rate (issued in US\$ indicating no currency risk) = 10.8%.

Then: $es-d = 1 - [(1+0.07)/(1+0.108)] = 3.4\%$

Indicating that the expected default on the Lebanese bonds by the investors is 3.4% or less (in cases of negative correlation to the investor's portfolio components)!

6. Size of Debt

The government deficits are financed by two main sources, money printing and &/or debt. This section deals with the deficit financing through debt and the effects of the debt's accumulation on the lenders/investors' confidence in the country under study. The section includes: definitions of debt kinds and some important ratios in debt analysis, the effects of debt problems on investors/lenders and the analysis of the Lebanese situation.

Debt definitions:

Debts accumulated by the government are called public debts while those accumulated by the private sector are called private debts. The government could finance internally, accumulate internal debts, by issuing short and medium term notes (Treasury Bills and note; T-Bills from now on). The government could also finance externally, accumulate external public debts, by issuing bonds or seeking loans that vary between; short and long term maturities. The total public debt owed by the government to its citizens and the rest of the world is the debt referred to in this section as no data is available on the private external debts.

Debt indicators:

Three main debt indicators are defined and employed in the concluding remarks of the debt size analysis in Lebanon: the type of debt held, debt dues /exports and debt /GDP ratios.

1-The type of external debt held:

The government could obtain external funds through loans or bond issuance. The loans are considered weaker ways of financing compared to bonds. International bond issuance is a sign of strength especially when conducted by developing countries.

2-Debt dues (principal + interest) /Exports:

This ratio reflects the country's creditworthiness. If the borrowed money is invested properly promoting the growth of GDP and exports, then the exports must be growing at a faster rate than the debt dues. The inclusion of transfers (as foreign currency receipts) in the denominator usually yields better ratios.

3- Debt/GDP:

The debt analysis is better conducted on trends of ratios not on annual figures. The fluctuation of debt/GDP ratio within a certain range is not always a crucial case. The maintenance of the debt/GDP ratio is considered a good case. This is achieved by equal growth of the debt and GDP figures. The following model by Gordon (1990) reflects the case:

If: $D = \text{Debt}$

$d = \text{growth in debt, } \Delta D/D$

$g = \text{growth in GDP}$

Then the ratio of debt/GDP remains constant if: $d = g$.

Multiplying both sides by D and replacing d by its equivalence:

$$\Delta D/D * D = g * D$$

Then $\Delta D = g * D$

Assuming that the change in debt (ΔD) is used to finance the deficit, then the growth rate in GDP equals the growth rate in debt and the ratio debt/GDP is constant. The fluctuation of this ratio within a narrow range is not dangerous.

Problems to investors/lenders:

The problems facing investors/lenders in cases of large size debts could be referred mainly to "unproductive investments of loans". This leads to a growing debt ratio faster than the GDP and exports' growth and therefore BOP problems. The borrowers in these cases may refrain from or reschedule their obligations. The foreign investors, then, might face difficulties in their profits' repatriation.

The Lebanese debt analysis:

The following two paragraphs analyze the Lebanese internal and external debts for the years (1989-1993).

Internal debt analysis:

Table 5: The internal debt analysis, gives the figures and ratios of internal public debt. The internal public debt along with its interests servicing were settled at about 53% of GDP in 1992 and in 1993 after the high ratios in 1989 and 1990. Total public debt exceeded GDP in 1989 and 1990, but we must note that the figures include total debts outstanding and the domestic productions in these years were abnormal because of hostilities. The ratios of public debt/GDP were decreasing in 1991-1993 period. The same table shows the percentage changes in nominal GDP and total debts. The growth in GDP was greater than the growth in total debts for the last three years 1991-1993.

Table 5: Internal Debt Analysis

A	*B*	*C*	*D*	*E*	*G*	*H*	*I*	*J*	*K*
1989	982.1	261.1	1243.2	1081.3	1133.6	1.15	1.05		
1990	1583	458	2041	1398.5	1786.5	1.46	1.28	29%	64%
1991	2639.9	507.2	3147.1	4296.8	2843.4	0.73	0.66	207%	54%
1992	5069.9	735.2	5805.1	9499	5069.9	0.61	0.53	121%	84%
1993	6166.4	604	6770.4	13122	7012.5	0.52	0.53	38%	17%

A: Year

B: Internal public debt (billion LP).

C: External public debt (billion LP).

D: Total public debt (B+C)

E: GDP (billion LP).

G: Total internal public debt & interests due [billion LP]

H: Ratio of total public debt to GDP. (=D/E)

I: Ratio of total internal public debt and interest to GDP.[=G/E].

J: % Change in GDP

K: % Change in total debt

Source: Banks' Association.

GDP figures are estimates of official studies for 1989-1991
& Ministry of Finance figures for 1992 & 1993.

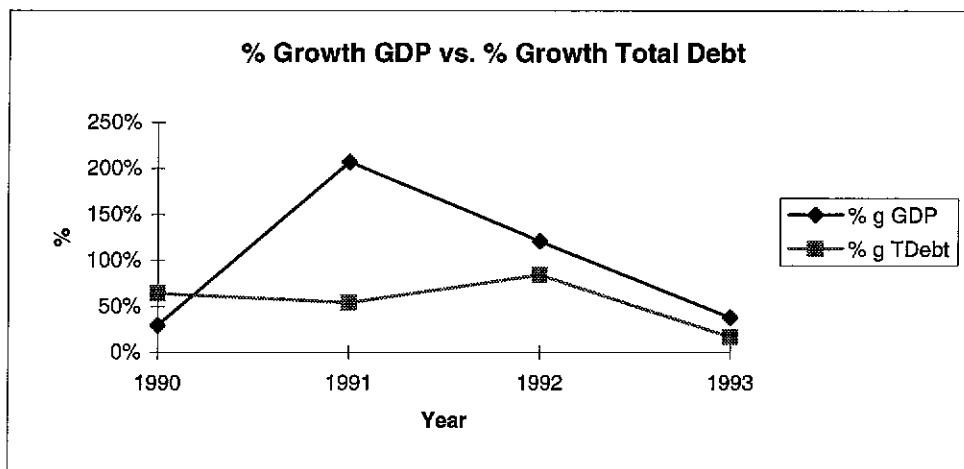


Table 6: External Debt Analysis

A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*
1989	517		518.3	485	2263	2177	6626	0.24	1.07	2.70
1990	544	5.22%	555.9	496	2578	1993	6120	0.27	1.12	2.16
1991	577	6.07%	579.3	490	3748	4629	6951	0.12	1.18	1.70
1992	400	-30.68%	400.0	558.5	4180	5551	6766	0.07	0.72	1.52
1993	353	-11.75%	417.3	1026.8	4900	7660	8720	0.05	0.41	1.69

A: Year

B: External debt (million \$)

C: Percent change in external debt.

D: Total external debt and interest obligations. (million \$)

E: Exports (million \$)

F: Imports (million\$).

G: GDP (million \$).

H: International Reserves (million US\$)

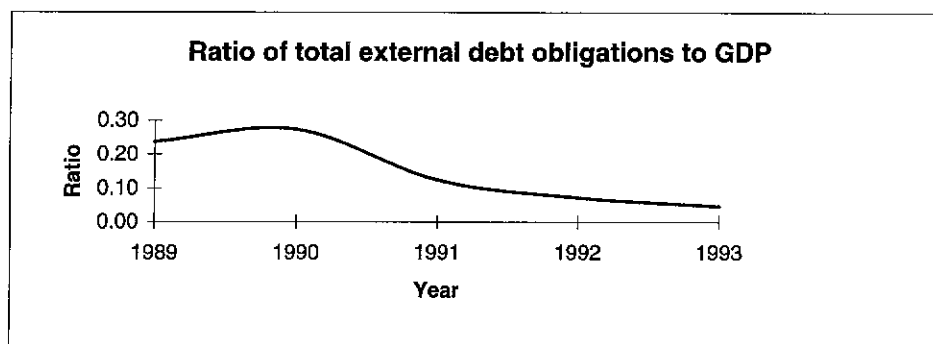
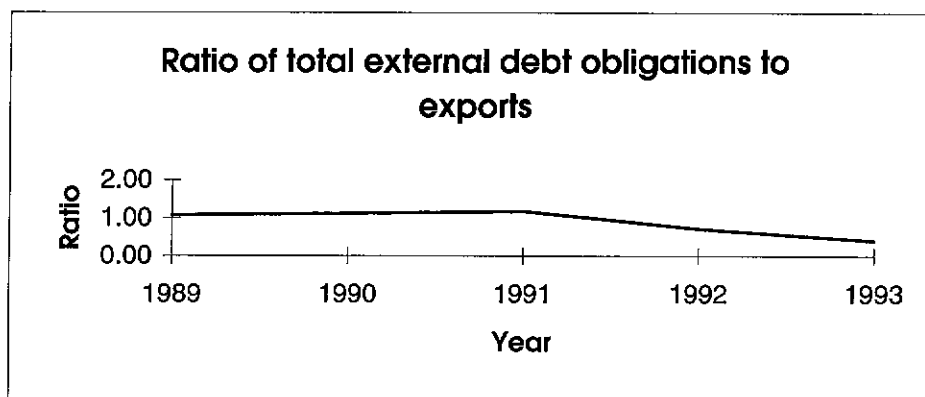
I: Total external debt obligations to GDP (=D/G)

J: Ratio of total external debt obligations to exports (=D/E).

K: Ratio of [international reserves - external debt] to imports [= H-D/F]

Source: Banks' Association Reports & IMF estimations for trade figures.

GDP figures according to the sources of internal debt table



External debt analysis:

Table 6: The external debt analysis, gives the figures and ratios of external public debts between 1989 and 1993. The external debt was growing at a slow rate between 1989 and 1991 until it turned to negative 31% in 1992 and had another decrease of 12% in 1993. External debt obligations were higher than exports in the given period except for 1992 and 1993. The total external obligations were about 7% of GDP in 1992 and 5% in 1993. The ratio of the difference between international reserves and external debt to imports had figures larger than one. Indicating that, in worst cases, Lebanon had international reserves to cover all its external debt and was still able to cover its imports for at least one and a half year.

Despite the Lebanese destructive war, Lebanon had higher internal debt figures than external ones. The three main debt indicators (type of external debt, debt/exports and debt/GDP) are employed in case of Lebanon.

- The Eurobonds issued by Lebanon in Luxembourg are a sign of strength and confidence of the foreign investors in the Lebanese economy.
- The total external debt/exports ratio was decreasing in the period 1991-1993. Keeping in mind that the figures include the total external debt in the numerator and the exports figures only in the denominator (excluding the transfers and receipts of foreign currencies). Had we considered only the due debts and included the transfers in the denominator, the ratio would have been lower.

- The debt/GDP ratio had high figures in terms of total public debts/GDP. It is important to control debt growth rate to keep a reasonable ratio that fluctuates in a narrow range.

7. Long Term Planning

The country's development is expressed by the government projects in various sectors. Generally, the government is expected to set medium and long term plans for the economic development. This section analyzes the government economic planning. First, the planning and its prospects will be defined. Then the sources of risk to the investors are highlighted, followed by the Lebanese case. I conclude with, comments on the Lebanese situation.

The government projects might not be executed exactly as stated by its plans; however; the general trends of the economic future could be traced through these plans. In short the government plans reveal the government priorities and figure the features of the encouraged economic sectors. (Khambata and Ajami, 1994, p:196).

Finance rules generally call for equal terms financing; that is, short term loans are used to finance short term projects and so on. However, debt financing in developing countries does not respect these terms. According to Eaton in his analysis of pure theory of country risk, short term loans are used to finance long term investments for several reasons:

1. Lenders could impose additional restrictions when renewing the loan terms when needed.
2. Lenders would be meeting competition and saving their market reputations upon the loan grants at fair prices. (p: 482).

Problems to the investors:

The absence of economic plans could imply investors' personal studies of the country's needs that might or might not be true in all cases. However, long term planning might be costly especially if unproductive projects were financed by short term loans or low growth rates were achieved while accumulating high debt rates.

Case of Lebanon:

In May 1991, the Lebanese Council for Development and Reconstruction, along with International Bechtel Incorporation and Dar Al-Handasa Consultants, prepared a framework of public sector reconstruction as a step towards the country's reconstruction. This framework resulted in a 10-year plan or program of development costing about US\$ 11.2 billion. The program constitutes of three main phases: rehabilitation, recovery and development in which it is expected to restore, expand and modernize the public sector's facilities. The program's budget targets four main areas; infrastructure, social projects, socioeconomic projects and other economic projects with respective budget percentages of: 41%, 27%, 24% and 8%. The detailed budget percentages are shown in the following table, in a descending order. (MEED, 28 Oct. 94, p:32).

The plan's financing according to the same article in the MEED, is projected from the following source:

1. Issuing bonds in foreign currencies (up to 15% of the total cost).
2. Loans and preferably those of soft terms.

3. Countries and multilateral agencies' donations.
4. Proceeds of the investment projects would be used to finance others.

Table 7: The 10-year plan projected budget distributions

Project	%
Water	15.9%
Education	15.7%
Autoroutes and airport	13.1%
Electricity	10.5%
Roads	8.8%
Public transport	6.8%
Housing	5.4%
Interior	4.6%
Health	4.4%
Public buildings	4.3%
Environment	3.9%
Agriculture	2.6%
Oil and industry	2.3%
Social affairs	1.3%
Information	0.4%
Total	100%

The plan has different scenarios of financing: assuming certain growth rates in GDP, tax reforms and reduction in the government expenditures until the whole plan would be self financing and the budget deficit would be minimized or diminished. The tax reforms were discussed previously and the efficient tax collections would increase the government revenues and motivate reasonable usage of the public sector services. Another way to decrease the debt burden is by the grants financing.

Comments:

As peace is approaching in the region, it is important for Lebanon to be ready to get into the competition (tourism, foreign direct investment, money markets, computer nodes and networks,etc.). The World Development report of 1994, by the World Bank, stated that:

“Infrastructure represents, if not the engine, then the wheels of economic activity. In some countries the wheel is turning smoothly, else where it is wobbling.” (Economist, p:80).

The main areas in infrastructure; water, energy, transport and communication are necessary to secure public health and promote advanced industry.

According to the World Bank report, resources spent ineffectively lead to losses in the shapes and returns of the infrastructure facilities:

1. Infrastructure costs are non-productive. Therefore it is important to insure good planning and use the right techniques when constructing them (labor intensive projects, cheaper and more efficient than the capital intensive ones).
2. Poor maintenance leads to the deterioration and extra costs when repairing and/or replacing.
3. Overmanned infrastructure services lead to more government expenditures and less effective work.
4. The subsidies by the government on the basic utilities are another expense burden.

According to the World Bank, the solutions are:

- The operation of the infrastructure services as commercial business.

- The movement towards total or partial privatization.
- The involvement of the consumers in planning and financing such projects.

In Lebanon, there are many critics of the government's attentions towards the infrastructure restoration despite the large amounts paid by the Lebanese for their essential services. The Lebanese are paying on regular basis for:

1. The services of private electric generators.
2. The services of private water carriers.
3. The time loss and extra expense of the employment of sales representatives and late workers due to the weak transportation system.
4. The services of the cellular phones and other assumed communication facilities.

These costs are much higher than the costs charged by the government on the public utilities (even without subsidies). Therefore, the assumed opposition to the rehabilitation phase of the development program is required to review its importance. The existence of good and well-developed infrastructure, facilitates the country's economic development and the attraction of foreign funds and investors.

8. Moral Hazards

Moral hazards are another source of risks facing the international lenders. Banks are responsible for their depositors and loan insurers. Therefore, banks are expected to engage in healthy and productive loans. As a part of their responsibilities, lenders are expected to study the borrowers' creditworthiness and supervise their activities. Creditworthiness was discussed in detail in the default risk section. In this section moral hazards as a result of hidden actions and information by the borrowers will be discussed. A general definition of the moral hazards concept will be presented, followed by the risks facing the lenders as a result of these actions. The Lebanese case will be discussed next. The comments' part will present some solutions to decrease the moral hazards.

Definition of moral hazards:

Moral hazards' problems appear as the lenders are not sure of the borrowers' performances ex-post (after) the loan contract is signed. That is, the lenders are not sure of the borrowers' good commitment to their contract terms. Despite the penalties and rewards' terms included in the contract, the borrower might have different interests in business than the lender and shift into his own risky activities leading to insolvency, bankruptcy and so on. (Solberg, 1992, p:291).

Risks to lenders:

The moral hazards problems result from the inability of the lenders to closely monitor all the activities of the borrowers after the loan contract is signed. Moral hazards problems are fewer in international loans than in loans granted within the developed countries. The international loans are usually granted upon the presentation of enough collaterals or reserves and the thorough analysis by specialized agencies or by previous lenders.

Moral hazards appear in cases of reduced penalties or the borrowers' ability of funds' usage in unobservable projects by lenders. (Eaton, 1989, p:485).

The Lebanese case:

As was mentioned in the debt section, Lebanon had always respected its external obligations and dues. Currently, the loans sought by the Lebanese government are for the funding of its development program and for the decrease of its budget deficit. As a result, the government would be able to self finance the reconstruction plan in its later stages.

The loans acquired by the Lebanese republic are for well designed expected productive projects and could be backed by the international agencies' reports and the past performances of the republic. Furthermore, the issuance of the Lebanese T-bills in US dollars is a sign of strength and confidence in the Lebanese economic situation.

As moral hazards rise due to asymmetric information on the borrowers' actions ex-post the contract signature (borrowers involved in risky activities), the moral hazards problems could be reduced in the following manners:

1. Collaterals: increase the probability of the borrowers' in getting the loan. They as well decrease the suspicions of the lenders of the ex-post illegal or immoral actions by the borrowers.
2. Net worth: or high borrowers' reserves moderate the moral hazards' thoughts in the minds of the lenders.
3. Private agencies' consultations and reports: it is important here to account for the high costs relative to small loans.
4. Government agencies: place regulations and high penalties on illegal activities or misleading reports.
5. Insurance agencies: impose high premiums on risky borrowers and projects.

CHAPTER
4

MODEL FOR COUNTRY
RISK FOR LEBANON

This chapter provides a model of country risk variables in Lebanon. Two regression equations are used to explain the variations in important variables in the Lebanese country risk considerations.

In an article read before the Royal Statistical Society in the United Kingdom, on May 1984, Abassi and Taffler presented a model for predicting the debt servicing problems in developing countries. Before building their model they chose a set of broad and justifiable independent variables according to the following criteria:

1. Variables found useful in previous studies.
2. Variables quoted from bankers and economists.
3. Variables built on a certain theoretical background. (Abassi and Taffler, p:546).

Among these variables are: GDP per capita, money supply, interest rates and inflation. In my study, I will rely on these variables along with others constructed on a theoretical basis for the Lebanese case to explain the changes in two dependent variables. These two

dependent variables capture Lebanese country risk. The first is the default premium charged on commercial banks' loans. The second is the exchange rate.

Model I: The Default Premium

Variables Specification and hypothesis formation

The dependent variable

As was mentioned in the creditworthiness section, the premium over LIBOR was empirically found to be a significant measure to estimate the country risk ratings. The dependent variable used in the first model is the default premium, the variable is calculated as follows:

Default premium (denoted as DP) = loan rate - T-bill rate.

Where:

- Loan rate: is the rate charged by commercial banks on the private sector loans in Lebanese Pounds.
- T-bill rate: is the rate paid by the government on its 3-month T-Bills issues in Lebanese Pounds. This rate is assumed default risk free.

The default premium is considered as the rate charged by the commercial banks on their Lebanese Pounds loans to the private sector over the Lebanese Pounds T-bills rate provided by the government.

The rates used in the study are the average annual rates for the period 1984-1993 according to the reports of the Central Bank.

The independent variables:

$$\text{Default premium} = f(\text{Av. Ex-rate, GDP per capita, } \%\Delta\text{CPI})$$

Where:

- Av. Ex-rate (denoted by E) = the average exchange rate for the end of period, annual figures for the years 1984-1993, according to the Central Bank reports. Exchange rate in this paper is defined as the price of the foreign currency (US\$) in terms of the domestic currency (LP). Indicating that an increase in E means a depreciation in the Lebanese Pound.
- GDP per capita (denoted by GC) = the amount of Gross Domestic Product per capita in Lebanese Pounds. The analysis figures are the yearly estimated data for the period 1984-1993. As official statistics on both GDP and population in Lebanon are not available, the best estimates found were a data set developed by a group of students for 1984-1991. Data for 1992 and 1993 were according to the Ministry of Finance. The data set of GDP figures as well as the population growth estimations were developed according to studies and analysis done by the Central Bank.

- $\% \Delta \text{CPI}$ (denoted by I) = the percentage change in the consumer price index that is translated into inflation. The annual figures for 1984-1993 were according to the reports of the Central Bank.

At this level, the model's hypothesis could be presented as:

$$DP = f(E, GC, I).$$

The GDP per capita is assumed to be a negative function of the default premium. An increase in GDP per capita would be accompanied by a decrease in the default premium. The other two variables, exchange rate and inflation, are assumed to be positive functions of the default premium. An increase in either of them would be accompanied by an increase in the default premium.

Analysis and results:

A multiple regression analysis was run, using ten observations, to test the variables' significance. The regression equation is:

$$DP = 5.87 + 0.026 E - 1.17 * 10^{-5} GC + 0.017 I$$

(3.036) (5.137) (-4.227) (2.125)

The t-statistics figures are included in the parenthesis.

Table 8: Summary output. - Default premium, gives the following results:

- The multiple correlation coefficient, $R = 0.926$, gives the degree of association among the variables excluding signs.
- The coefficient of multiple determination, $R^2 = 0.857$, indicates that 85.7% of the variation in the default premium is explained jointly by the three independent variables (E, GC and I).
- Adjusted R^2 for the degrees of freedom = 0.785.
- The three independent variables are statistically significant and contribute to the explanation of the variation in the default premium. The average exchange rate and the GDP per capita are significant at 0.01 level while the inflation rate is significant at 0.1 level. All the independent variables had the right signs, indicating that an increasing rate of inflation and the depreciation of the Lebanese Pound resulted in higher default premiums. At the same time, lower GDP per capita would result in another increase in the default premium charged on the loans in Lebanese Pounds.
- The F-statistic = 11.98 and is significant at 0.01 level, indicating that the regression equation as a whole is explaining a significant portion of the variation in the default premium.

Table 8: Summary Output - Default premium

<i>Regression Statistics</i>	
Multiple R	0.926
R Square	0.857
Adjusted R Square	0.785
Standard Error	3.148
Observations	10

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	356.18	118.73	11.98	0.0061
Residual	6	59.47	9.91		
Total	9	415.65			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	5.8689	1.9328	3.036	0.02291	1.13944	10.59838	1.13944	10.59838
Av. Ex. rate	0.0258	0.0050	5.137	0.00214	0.01353	0.03813	0.01353	0.03813
GDP/pop	-0.000012	0.000003	-4.227	0.00552	-1.84192E-05	-4.9135E-06	-1.84192E-05	-4.91349E-06
Inflation	0.0173	0.0081	2.125	0.07776	-0.00262	0.03720	-0.00262	0.03720

Recommendations:

The analysis conducted to test the factors affecting the high default premiums charged by the Lebanese commercial banks on their LP loans over the LP T-bills resulted in the significance of three variables; exchange rate, GDP per capita and the inflation rate.

- The results indicate that the larger the exchange and inflation rates and the lower the GDP per capita, the higher the default premium charged.
- The simple regression analysis using the default premium as the dependent variable and each of the explanatory variables as an independent variable, revealed that the average exchange rate had the highest contribution ($R^2 = 0.19$) among the other independent variables in explaining the variation in the default premium. The next important explanatory variable was the inflation rate followed by the GDP per capita with 0.14 and 0.03 R^2 figures respectively. According to this result, the exchange rate

would be used as the dependent variable in another model constructed to test for the variables determining the changes in the exchange rate.

- Some statistical limitations exist such as the estimated GDP per capita figures, the daily averaged exchange rates into yearly figures and the averaged loan rates of all the operating Lebanese commercial banks.

To sum up, the default premium model assumes that the excess in the commercial banks' loans over the T-bills rate was due to the exchange rate fluctuations, high inflation and the decrease in GDP per capita in the period 1984-1993. Assuming all commercial banks had the same identification of the default premium. This idea is financially and economically a logical one, but it is important to keep in mind the bank-customer relationships, the marketing strategies that differ among banks and the prevailing political situation then. During the 1984-1993 period, the Lebanese commercial banks experienced different lending strategies. The Lebanese community as well had another borrowing strategies as they almost refrained from borrowing despite the negative real interest rates then. The lenders' and borrowers' strategies not included in the model could have possibly explained further the variance in the default premium.

Model II: The Exchange Rate

As was mentioned before, the exchange rate in this analysis is the value of foreign currency (US\$) in terms of the domestic currency (LP). The theoretical determinants of the exchange rate are presented in the following points:

1. The quantity theory of money and the Purchasing Power Parity assume the fluctuation in prices and therefore exchange rate as functions of relative money supply, real GDP and other factors capturing the people's spending habits in foreign and domestic countries.
2. The International Fischer Effect assumes the exchange rate as a function of nominal interest rates.
3. The expectations of growth in money supply and other fundamentals such as unemployment, budget deficit and trade deficit affect the exchange rate.
4. Qualitative measures such as political stability, official statements and official interventions in the money markets affect the exchange rate.

Variables' specifications and hypothesis formation:

The dependent variable:

The most significant variable in explaining the default premium in Lebanon was the exchange rate (according to model I). The dependent variable used in the second model is the percentage change in exchange rate. The variable is calculated as follows:

$$\text{Percentage change in exchange rate (denoted by } \% \Delta E) = [(E_t - E_{t-1}) / E_{t-1}] * 100$$

Where:

- E_t : is the period's average exchange rate.
- E_{t-1} : is the previous period's average exchange rate.

The exchange rates used in the study are the average monthly rates for the period Jan. 1992 to Dec. 1994, according to the reports of the Central Bank.

The independent variables:

$$\% \Delta E = f(\text{Money supply, nominal deposit rates})$$

Where:

- Money supply = the monthly money supply figures in billions of Lebanese Pounds for the period Jan1992-Dec1994, according to the Central Bank reports. Money supply is a monetary variable that captures the period's inflation rate. The figures used in the model estimation are the percentage changes in money supply (denoted by $\% \Delta M_s$).
- Nominal deposit rates = the monthly nominal average deposit rates offered by the commercial banks to their creditors. The figures for the period of study Jan1992-Dec1994 were obtained from the Central Bank reports. The deposit rate captures the expected inflation rates. The analysis employs the percentage change in deposit rates (denoted by $\% \Delta D$).

At this level, the model's hypothesis could be presented as:

$$\% \Delta E = f(\% \Delta M_s, \% \Delta D).$$

The percentage change in both variables is assumed to be a positive function of the percentage change in exchange rate. According to the Purchasing Power Parity, the increase in money supply indicates inflationary financing that is accompanied by an increase in exchange rate, that is, currency depreciation. According to the International Fischer effect, higher nominal deposit rates reflect higher expected inflation and increase in exchange rate, that is; currency depreciation.

Analysis and results:

A multiple regression analysis was run using 35 observations to test the variables' significance. The regression equation is:

$$\begin{array}{ccccccc} \% \Delta E = & -1.452 & + & 0.947 & \% \Delta M_s & + & 0.716 & \% \Delta D \\ & (-1.266) & & (5.868) & & & (3.082) & \end{array}$$

The t-statistics figures are included in parentheses.

Table 9: Summary output. - Exchange rate resulted in the following:

- The multiple correlation coefficient, $R = 0.772$, indicates the degree of association among the variables.
- The coefficient of determination, $R^2 = 0.596$, indicates that 59.6% of the variation in the percentage change in exchange rate is explained jointly by the independent

variables (% Δ M_s and % Δ D). The low R^2 in this case implies other factors intervention in the determination of exchange rate. The exchange rate could possibly explained by other factors such as political stability, official intervention and others.

- Adjusted R^2 for the degrees of freedom = 0.571.
- Both independent variables are statistically significant at 0.01 level and contribute to the explanation of the variation in the % Δ E. Both independent variables had the right signs. That is, the increase in money supply and the increase in deposit rates reflecting an increase in the current and expected inflation rates caused an increase in the exchange rate and therefore a depreciated currency.
- The F-statistic = 23.58 and is significant at 0.01 level. The F-test reflects the significance of the explained portion of the exchange rate by the regression equation.

Table 9: Summary Output - Exchange rate

<i>Regression Statistics</i>	
Multiple R	0.772
R Square	0.596
Adjusted R Square	0.571
Standard Error	5.681
Observations	35

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1522.34	761.17	23.58	0.0000051
Residual	32	1032.81	32.28		
Total	34	2555.15			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-1.4523	1.1469	-1.266	0.2145490	-3.78832	0.88381	-3.78832	0.88381
% D Ms	0.9469	0.1614	5.868	0.0000016	0.61817	1.27554	0.61817	1.27554
% D Dep.	0.7159	0.2322	3.082	0.0042040	0.24281	1.18893	0.24281	1.18893

Concluding remarks:

The analysis conducted to determine the factors affecting the Lebanese Pound fluctuations between 1992 and 1994 resulted in the significance of two variables money supply and deposit rates.

- The results suggest that the higher (lower) money supply and higher (lower) deposit rates, the higher (lower) the exchange rate figures and therefore the Lebanese Pound experiences depreciation (appreciation) in its value. The results confirm the International Fisher effect and a variable in the Quantity-Purchasing Power Parity theory for the Lebanese case.
- Several multiple regressions were conducted to test for the variables contributing to the fluctuations in exchange rate. A multiple regression run to test the significance of real GDP (as a factor in the PPP theory) and real interest rates in addition to money supply as independent variables in the explanation of changes in exchange rate. The analysis used yearly data for the period 1982-1993. Despite the absence of autocorrelation, the test rendered high R^2 and adjusted R^2 figures (= 0.979 and 0.971, respectively). The F-test was significant at 0.01 level. The real GDP and money supply coefficients had the right signs and were significant at 0.02 level. The real interest rate had the right sign (negative relation between the exchange rate and real interest rates) but was insignificant in explaining the variation in exchange rate. The regression analysis indicated that a decrease in real GDP and increase in money supply caused an increase in exchange rate, that is Lebanese Pound depreciation.

These results are less reliable as the averaging of daily exchange rate figure into yearly data would ignore some significant fluctuations.

- The indirect effect of political instability in the first three quarters of 1992 is implied in the model results.
- Some variables such as political instability, interventions, statements and spending habits were not included in the study. These variables were experienced in the Lebanese case as the study period witnessed:
 - Political changes such as: riots, government changes and parliamentary elections.
 - The Central Bank interventions to preserve the value of the Lebanese Pound.
 - The official statements about the expected inflation and economic stagnation.
 - The people's spending habits, due to the dollarization phenomenon then, they used to speculate and change their Lebanese Pounds into US Dollars.

These variables would further explain the LP fluctuations.

To sum up, the exchange rate model assumes that the depreciation in the Lebanese Pound was partly due to the high money supply and high deposit rates in the period 1992-1994. The theoretical backgrounds of these assumptions call for the purchasing power parity theory and the International Fischer effect. However, the community's lack of confidence in the government in the first three quarters of 1992 led to the increased depreciation in the Lebanese Pound. The appreciation signs that followed the appointment of the "Hariri government" support the political variable's contribution to the exchange rate levels.

Other direct and indirect political effects and official roles in the markets could further explain the variance in the exchange rates. The proper measurement of such dummy variables might add an area in the exchange rate determinants modeling in the future.

CHAPTER
5

CONCLUDING REMARKS

The current Lebanese government efforts are to rehabilitate and reconstruct the losses during the past years and establish a corner stone for a new Lebanon 2000 to be able to enter the 21st century from the front door.

The internal and approaching regional peace promise a good future for Lebanon along with its fortunes of talents, freedom and openness.

The government's policies to decrease expenses and increase revenues lead to a gradual decrease in budget deficit and stepwise growth. The economic growth and stability are accompanied by the government care of the social aspects such as health care and education. The growth prospects in GDP reflected in the 10-year development plan enable capital owners to have a clearer view of investment opportunities in Lebanon. The investment incentives are reflected in the moderate tax rates, appreciating currency, decreased inflation and other economic motives.

Debt financing from external sources (Eurobond issuance) and at cheaper rates than internal debt (provided currency is stable) are signs of strength if funds were used for productive investments.

The regression models obtained in the study reflected the effects of the risk factors on the economic growth. Default premium was increasing due to increased inflation, depreciation of the Lebanese Pound and the decrease in the GDP per capita. The exchange rate was affected by the current and expected inflation rates reflected in the money supply and deposit rates respectively. The exchange rate model proved the application of the international Fisher effect and the purchasing power parity theory in case of Lebanon. The reactivation of the National Statistical Center provides better facilities for investors/lenders in their planning.

The decrease in bureaucracy and political interferences in the economy allows the private sector to compete effectively and achieve better results.

To sum up, Lebanon could achieve high performances using its unique features and wealthy resources. The projected growth rates could be achieved using the human and monetary resources in the shadows of the international confidence and its middle eastern central location. Replenishing the human sector in the country is a good investment. An effective interaction between the Lebanese businesses and the educational centers to provide complementary programs, is the first step towards building the human minds.

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