THE EFFECTS OF THE EXCHANGE RATE FLUCTUATION ON LEBANESE FOREIGN TRADE

A Research Topic

Presented to Business Divison

Beirut University College

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Business

Management

By

Khalil H. Harakeh

July,1986

BEIRUT UNIVERSITY COLLEGE

P.O.BOX 98 13-5053

BEIRUT , LEBANON

APPROVAL OF RESEARCH TOPIC

CANDIDATE: Khalil Hasan Harakeh DATE: July 1986

DEGREE: M.S. In Business Management

ADVISOR : Dr. Mithileshwar Singh

TITLE OF RESEARCH TOPIC : The effects of the exchange rate fluctuation on Lebanese foreign trade.

The following professor nominated to serve as the advisor of the above candidate has approved this research topic.

ADVISOR : Dr. Mithileshwar Singh

Name

[redacted]

Signature

[redacted]

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION.

CHAPTER 1

INTRODUCTION

Lebanon's trade sector occupies the largest share in the National Income of the country.Because of the geograpicál position and the free exchange rate system of the country,foreign trade activities have increased tremendously in the post war period.The volume of imports has been increasingly larger than volume of exports.Thus,a large trade deficit exists in the balance of payment of the country,which is largely covered by earnings from invisible trade and capital inflow.The increasing volume of capital funds flowing into the country has been mainly due to the relative political stability and the free exchange system of the country.

Most of this capital,however,has been invested either in trade or construction,contributing very little to the industrial and agriculture development of the country.The inflow of capital funds has been a major factor in the expansion of the banking industry,which in turn has furthered the growth of trade.

This growth continued till year 1974.which was considered the most prosperous year for the Lebanese economy and its operation(the Lebanese economy) was the most active among the Arab economies.

In 1975 and 1976,the Lebanese economy was deeply affected by the civil war,due to huge material and human damage ,and the destruction of the infra-structure of the economy.The years extending to the eighties have been directed towards the process of reconstruction and development.

At the end of 1980,the efforts to rebuild and reconstruct what the war damaged were limited and to a greater extent stopped.Several serious social and economic crisis were emerging.These crisis, together with political and security instability which was topped by the Israeli invasion in Summer of 1982 resulted in more damage and destruction .

Since November 1983 ,the Lebanese economy is suffering from the sharp increase in the exchange rate of U.S.dollar vis-a-vis Lebanese pound.-To some extent this increase can be referred to the above mentioned crisis.-Because of this instability of the foreign exchange rate,the foreign exchange market in Lebanon,suffered from the acts of the speculators.

There is ,as a matter of fact,a close link between the foreign exchange market and exports,imports market-foreign trade market.-This market will be automatically affected by any change in the foreign exchange rate,and that's what happened to the Lebanese market.

STATEMENT OF THE PROBLEM

Stated succinctly,the problem of the study is that of establishing quantitative relationship between exchange rate and the fluctuations caused in the exports and imports trade of the country.The study seeks to determine those relationships through the medium of statistical analysis.

PROBLEM QUESTIONS

The study is designed to seek the answer of the following questions:

1- To what extent do the fluctuations in the exchange rate of foreign currencies affect the values of imports and exports.

2- To what extent do the fluctuations in money supply, G.N.P. and exchange rate affect the value of imports and exports.

STATEMENT OF THE PURPOSE.

The purpose of this project is to study the effects of the fluctuations in the value of Lebanese pound against foreign currencies.- The fluctuation in the Lebanese foreign exchange market will be represented by the fluctuation of the U.S. dollar value in Lebanese pound- on the foreign trade sector. The importance of this subject emerges, especially when we know that foreign trade sector contributes the largest share in the National Income of Lebanon.

More specifically, the purpose is to construct a model showing the quantitative relationship between the exchange rate and the fluctuations it causes to the volume of trade.

PERFORMANCES OBJECTIVES

Upon completion, the researcher would be able to accomplish the following objectives:

1- To examine the variables that constitute the fluctuation in the exchange rate.

2- To discuss and analyse the movement in the exchange rate and the impact they leave on volume of foreign trade.

3- To perform time series and regression tests on variables associated with fluctuation in exchange rate.

4- To develop a model showing quantitative relationship between exchange rate and the volume of trade in the country.

METHODOLOGY

As it is mentioned before that this project examines how much of the changes in the value and quantity of the exports and imports can be explained by the fluctuation in the exchange rate of U.S.dollar.In this respect,a regression analysis is to be done,to test how much of the changes in the dependent variables will be caused by the fluctuation in the independent variables.Also to see if this informal devaluation for the Lebanese pound improves the trade balance?

The data compiled to complete the project were taken from three major sources:

- Monthly and annual reports of the Lebanese Chamber of Commerce and Industry.
- The Bulletin Trimestrial of Banque Du Liban.
- Annual reports of the I.M.F.publication "International Financial Statistics".

The study covers a period of eleven years(75-85) with emphasis on years 1984 & 1985.The monthly avearge exchange rates of the U.S.dollar against the Lebanese pound as given by the central bank statistics are used to measure the value of the Lebanese pound.

In normal period,the exchange rate of the dollar in the Lebanese market is directly related to its exchange rate in the European market.

This study provides a regression analysis for imports and exports beginning year 1975 till 1982,in order to relate the exchange rate fluctuations to exports and imports values, followed by a time series analysis to calculate the expected figures for the years 1983,1984 &1985.Then a comparison of the estimated figures with the actual figures is carried to develop a comparative statement of exports and imports.

DEFINITION OF TERMS

Some of the terms used in this research require definition .These are presented below:

- Exchange rate means the counter value of one U.S.dollar in Lebanese pound.
- Increase in exchange rate,means the increase in the counter value of one dollar in Lebanese pound,in a word when the value of lebanese pound decline.The opposite means for the decrease in the exchange rate.

CHAPTER 2

PRESENTATION AND ANALYSIS OF RESULTS.

CHAPTER 2

PRESENTATION AND ANALYSIS OF RESULTS.

A- THE LEBANESE ECONOMY.

i- Background and the impact of war.

In the last two decades, the Lebanese economy has known some industrial development, the fact which decreases its dependence on the service sector. But still this sector contributes more than 50% of the G.D.P.

The service sector consisted of three major areas: The services of the financial institutions; those of trade, transport and communication; and the touristic services. Here, we must not forget the expatriate deposits, which accounts $ 150 million per month - a survey done in year 1982 before the Israeli invasion - and were estimated to be between $180-$200 million per month in 1983. Those remittances not included the transfers of the Arab investors.[1] Those transfers are directed towards either immediate consumption, real estate investments or deposited in commercial banks. Only a small part is directed towards productive investments. This volume of immigrant remittances and the manner in which they are channelled have increased the consumption tendency of the Lebanese population and put an additional pressure on the inflationary forces of the economy. This dependence on the immigrants has increased in the war, and especially after the Israeli invasion to Lebanon.

The Lebanese industrial sector, which was considered one of the most advanced sectors in the Middle East, was heavily affected by the civil war (1975-1976).More than 50% of the industrial infrastructure was damaged.Efforts exerted by the private and the public sector to rebuild what was damaged faced by major economic,social and political obstacles.Then the Israeli occupation army intended to bombarding the industrial area in Beirut -southern suburb-during the last week of the invasion,to destroy completely the industrial sector in Lebanon.Also the instable political and security conditions implied a greater investment risk factor and a lower demand for local currency in favour of foreign ones.These conditions have snaken to a large extent the confidence invested in the Lebanese economy.

In the same way,the agricultural sector has been negatively affected,where the war and in particular the continuous invasions and raids by Israeli troops and airplanes have resulted in mass destruction of productive areas most of which are located in the South or the Bekaa'.

Furthermore,the cornerstone of the Lebanese economy;i.e. the service sector has been more badly damaged by the instable situation:the touristic areas of Baalbek,Sidon,Tyre and many others have became unreachable, almost all hotels have been completely destroyed and the insecurity situation put a higher risk on the tourists lifes and push them to look for a safer place where to spend their vacations and money. The position of Lebanon as a central doorway that connects the East with the West has been destroyed. Most Arab countries shifted their transportation route to other ports in Syria and Jordon, while the legal ports of Lebanon have become centers for smuggling and illegal imports (arms and weapons), also the illegal ports spread along the Lebanese coast,-a latest survey reveals that there is eleven illegal port in Lebanon.- Last but not least, the financial market of Lebanon lost its position as a regional market where some savers and investors channeled their activities into Europe and U.S.A. While others tried to develop their own financial institutions.

From all the above mentioned facts we can say that Lebanon has had a consumption,imports oriented economy that exports minor items and depends on imports even for its daily requirements.- Lebanon's propensity to import, estimated at around 55-60% [2]- As a matter of fact, the figures given by the I.M.F. annual report, say that imports were at L.L.11614 million in 1980, while exports were L.L.2983 million for the same period. This gave a ratio of exports to imports of 25.68% and resulted in a trade deficit of approximately L.L.8631 million.

However, inspite of this large trade deficit the Lebanese balance of payment registered a surplus of L.L.2079 million and L.L.3124 milliom in 1979 and 1980 respectively. This increase is a result of the increase in foreign aids, grants and workers' remittances.

Finally it is important to note that the Lebanese state budget registered a continuous and increasing deficit during the period extending to the eighties. This is due mainly to the fact that the largest share of the government expenditures (70 %) goes to unproductive areas, such as administrative expenses and salaries coupled with an i nabilty to collect direct and indirect taxes which contributes to about 75 % of the public revenues.

ii- The foreign exchange market in Lebanon.

Foreign exchange is the act of trading different nations' monies . Each nation's money has a price in terms of each other nation's money. This is the exchange rate.[3]

A foreign exchange market could be classified into two groups : normal or speculative. A period is defined as normal if there exists some confidence in the stability of the currency's exchange rate range as determined by the supply and demand . On the other hand , a speculative period is one in which the market witnesses a wide and unexpected changes in the exchange rate in a short time span due to factors not accounted for in the pricing model.[4] In a normal period,variations of the exchange rates occur due to economic factors such as the money supply, the balance of payment deficit,a surplus, the interest rate ...etc.,the foreign exchange rate adjusts to these variations. However,in a speculative period variations are due to other factors,such as government intervention through monetary and fiscal policies as well as political instability and lack of confidence in the system.[5]

It is obvious that the Lebanese foreign exchange market has been speculative since the beginning of the war. In fact, the rate of exchange of the dollar against the Lebanese pound has been fluctuating too widly within a very short period which went as far as 1.5 L.L. fluctuation within one single day.

In normal periods, the exchange rate of the Lebanese pound against foreign currencies is directly related to the exchange rate in the European market, as well as the relative supply and demand conditions in the local market. Which in speculatve periods, the factors that determine the value of the Lebanese pound are unique and totally unpredictable. During the war many peaceful periods coupled with a revival of the commercial and daily activities , a large inflow of foreign currencies could not help in stopping the devaluation of the national currency, in spite of the fact of the sound gold coverage that attained one of its highest monetary values.

In a word, the Lebanese pound has in some period experienced a lot of ups and downs against foreign currencies unexplained by any change in the economic indicators. This is not surprising since in the Lebanese case, the problem is no more a problem of economic conditions only, but also one of security and confidence : a confidence in a strong government that could take initiatives to impose security and stability in the economy.

Moreover , the opinion of the Lebanese economic analysts are extremely opposite as to their expectations concerning the evolution of the Lebanese pound value. Some always go on affirming that the rate of the L.L. against the dollar will soon return to 10.00 L.L. or even less. While others think that it will attain some unexpected rates , that might go as far as 40.00 L.L./ $ within a period of two months. The arguments given by each group in favour of their expectations are so often valid and convincing, the fact which create a feeling of confusion and ambiguity to many dealers in the Lebanese foreign exchange market.

It is important to note , at this point, the fact that almost 90 % of the speculative demand for foreign currencies - mostly done by commercial banks and brokers - as well as the the precautionary demand for foreign exchange - i.e. bought as a refugee against any possible depreciation in the value of the Lebanese pound - are done in terms of the U.S. dollar. While the demand for other foreign currencies is mainly transactionary (i.e. , closing balances of L/C. and personal requirements).

iii- Economic, and non-economic reasons of the fluctuation in exchange rate.

In fact , in the last decade , the U.S.dollar has gained a strong position as a currency of refugee. Since 1980, after the election of President Reagan, the dollar has known a continuous appreciation vis-a-vis almost all other currencies as a result of the non-inflationary policy adopted by President Reagan. In addition, the position of the United States as an industrial leader has given the dollar its strength and made it one of the most international significant currencies.

Before studying the local reasons for the fluctuation of U.S.dollar in the Lebanese exchange market , we have to distinguish between two stages[6]:the first stage from mid 1975 till the Israeli invasion in Summer 1982. The second stage from the beginning of mountains'battles in 1983 till now.

- The first stage: The real balanced exchange rate (based on the purchasing power) of the U.S.dollar vis-a-vis lebanese pound was 3.20 L.L.,that was in 1974.With the beginning of the civil war , the exchange rate tend to increase,and this increase characterized in two things:

1- Was progressive and natural due to bad economic conditions.

2- Was in a limited range, expressing the development of the country's economic and fiscal conditions.

The exchange rate increased in this stage (7 years) from

2.40 L.L. to 5.25 L.L. per on dollar.

- The second stage : When the economic,monetary and fiscal situations started its deterioration in a tremendous and dangerous manner, the exchange rate of U.S.dollar increased to around 19.00 L.L. at the end of year 1985.

The reasons for this increase in the exchamge rate of U.S. dollar are as follows:

The economic reasons.

The deteriorated economic situation, and the deficit in the balance of payment , were the basic reasons of the increase in the exchange rate of U.S.dollar in the second stage. The most attractive feature in this stage was the deficit in the balance of payment . The Lebanese balance of payment was in a surplus position from the independence era till the end of the first stage. But since 1983, this balance registered a deficit was around L.L. 950 million, and increased to L.L. 1400 million in 1984, with an increasing trend. This deficit was due to the decrease in the capital transfer to Lebanon, (which was an important element contributed in the surplus of the Lebanese balance of payment) and the stop of the Arab aids , which was agreed upon at the Tunis Summit in Nov.1979. Here we can see that the deficit in the balance of payment has a negative, direct effect on the exchange rate of the Lebanese pound, pushing its value down.

Also, it is important to note that the Lebanese state budget registered a continuous and increasing deficit, which was amounted around L.L.8000 million in 1983, increased to

L.L. 10000 million in 1984.

The public debt increased from L.L. 6900 million in 1981 to L.L. 31400 million in 1984, and this debt was much higher than the national income (which was estimated at L.L.17000 million). The danger of this debt comes from that the central bank finance the highest portion, and we know that when the central bank lent the government , he creates money from nil, the thing which led to an increase in money supply, and to an increase in prices.

Finally, we must mention one of the most dangerous results of the war , which is the galloping inflation. In 1984 the average increase in prices was 35 %, and this ratio increased to more than 100% in 1985, Also we have to mention here the massive destruction in all economic sectors , especially the industry.

The non-economic and political reasons.

The study of economic and allied indicators is essential to interpret foreign exchange rates movements, but serious dealer and practitionares in the foreign exchange market shall possess a working knowledge of other non-economic factors such as political situation, expectations and rumors and the like.

In fact, political instability often creates unstable and weak currencies, and security shocks and revolutions tend to give a volatile and inflated currency. Even in the best established nations in the world, the unsettling influence of political events such as presidential election is felt on the foreign exchange market. Also political instability have negative affects on the various productive sectors of the economy. As a results of the insecure situation coupled with battles and bombardments since the beginning of the civil war, the industrial sector reduced or shut down its activities, the services, and in particular touristic services, reduced to zero and foreign investors drew their capitals : all of those and many others facts will reduce the capital inflow into the country and therefore deteriorate the balance of payment position and impose inflationary pressure on the economy. Figure: 2-1 clarify the relation between political and security instability to the fluctuation in the exchange rate of L.L. vis-a-vis U.S. dollar.

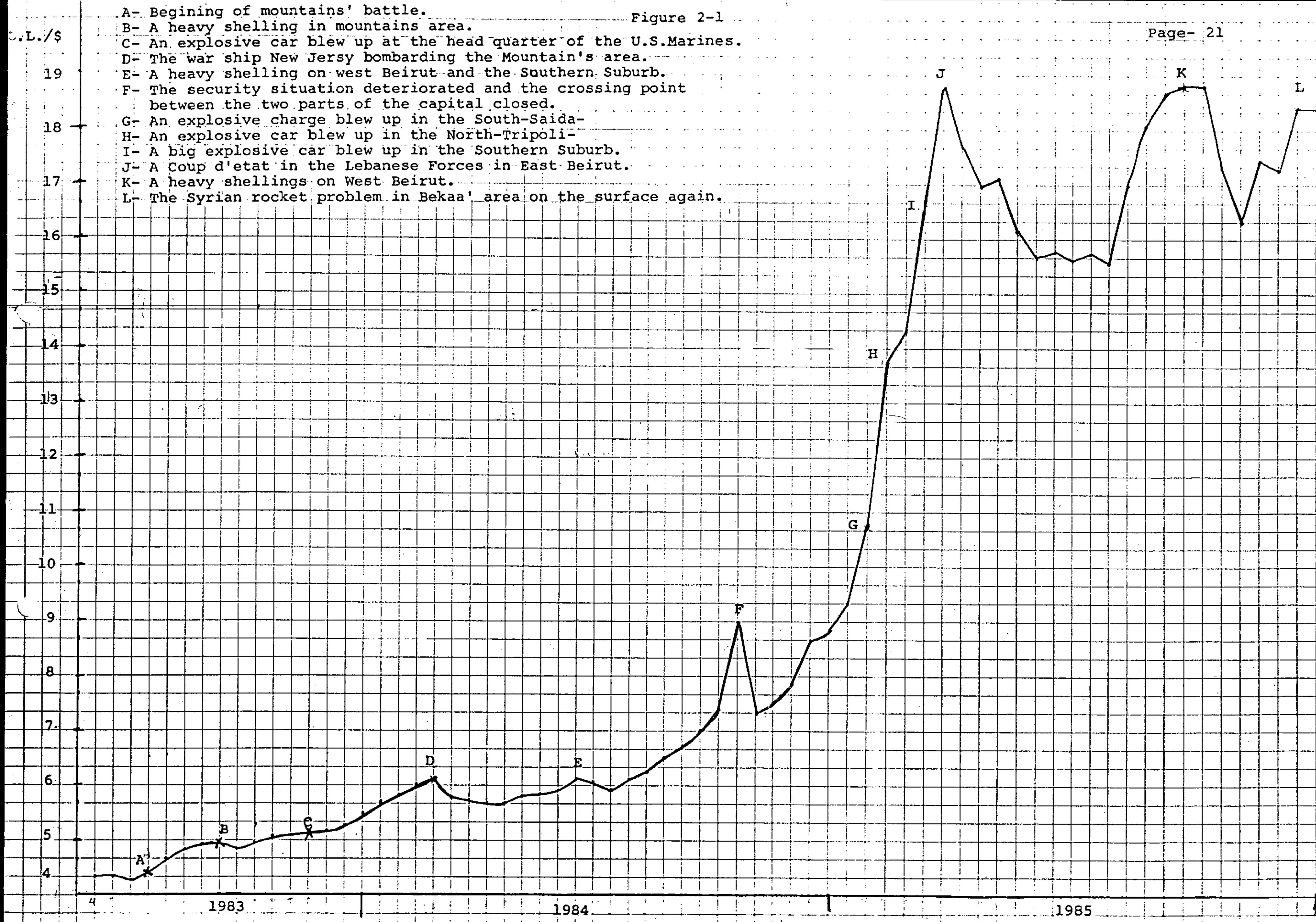
The second factor that affects the exchange rate is the role of the future expectation on the spot exchange rate. We all know that as in any commodity market, prices are affected by expectations. For instance, if most businessmen, dealers and the population of a country beleive that ,for whatever reasons they might have, the exchange rate of a currency is going to appreciate in the future and behave accordingly by demanding increasing volumes of the foreign currency, and this bargain is exposure to win or loss. This is speculation. Speculation is legal and natural in free exchange market, like we have in Lebanon. But we should note the basic and important role of "the foreign exchange mafia" in contributing to the deterioration of the national currency used by most of the players on the Lebanese political scene to finance their destructive activities. What make the job of this mafia so easy is : the narrow exchange market of Lebanon, its independence from the international market of U.S.dollar, and the existence of some capitalists in this mafia, that they can dominate the Lebanese exchange market by their money ability.

Also, it is important to talk about the psycological aspect. The Lebanese society dominated by a terrible pessimistic environoment, and they believe that the future of their country, especially the economy will be bad. The quick spread of rumors and news, saying that the Lebanese pound will became a piece of paper without any power, pushs the Lebanese - and they know that no smoke without fire- to look for a safe instrument to preserve their wealth, and what is safer than the dollar ?

The final and most important reason that lies behind the financial weakness of the Lebanese pound is the weakness of the Lebanese government and the fact that a large part of its expenditures goes into unproductive areas such as wages and salaries to unproductive employees. In addition we should not forget the demand by the government itself for foreign currencies, especially the U.S. dollar, to finance its war activities and in particular for the purchase of arms and weapons.

Before moving to the next section, we must know that, many economist and money dealers consider the Lebanese pound as fin-~~ancially too weak and therefore is traded at a very low price~~ since, in order to reflect its true financial position it should be traded for no less than 10.00 L.L./$.

Figure 2-1


A- Begining of mountains' battle.
B- A heavy shelling in mountains area.
C- An explosive car blew up at the head quarter of the U.S.Marines.
D- The war ship New Jersy bombarding the Mountain's area.
E- A heavy shelling on west Beirut and the Southern Suburb.
F- The security situation deteriorated and the crossing point between the two parts of the capital closed.
G- An explosive charge blew up in the South-Saida-
H- An explosive car blew up in the North-Tripoli-
I- A big explosive car blew up in the Southern Suburb.
J- A Coup d'etat in the Lebanese Forces in East Beirut.
K- A heavy shellings on West Beirut.
L- The Syrian rocket problem in Bekaa' area on the surface again.
L.L./$
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
A
B
C
D
E
F
G
H
I
J
K
L
1983
1984
1985

B- FOREIGN TRADE SECTOR IN LEBANON.

i- Importance of foreign trade in Lebanon.

Because of the mountainous topograhy of the country, cultivable area is restricted. It is estimated that only about 25% of the total surface (10450 sq.km.) is at present under cultivation; however, a wide variety of crops can be cultivated because of such topography and of the climatic conditions which it gives rise to.

One characteristics of the Lebanese economy is its uniqueness in national income and employment structure, 50% of the population works on agriculture, but contributes only 15%to the N.I. On the other hand, 14% of the population work in commerce, finance and other services, but contributes around 50% to the national income. Also, in a study done in the early seventies, it was found out that income arising in the trade sector was the largest, being around 30% of total income.

Income originating in the trade sector is defined as the "total of incomes originating in agency, wholesale and retial transaction in goods, net of depreciation charges, indirect taxes and miscellaneous costs." Trade activity so defined comprises transaction in goods produced and consumed locally,goods produced locally and exported, imported goods, and goods in transit. Thus, the mercantile class in Lebanon thrives on a prosperous import and re-export trade as well as on such services transactions as gold brokerage, transit trade , exchange and commodity arbitrage, exchange and commodity transactions.

Taking percentage distribution of the national income per sector for the years 1952 till 1974, we see that trade or commerce remains the principal source of income in the country, providing between 25 and 30 % of total income, in the period till mid sixties, then after this period, we notice that it has been declining, percentagewise, in relation to other sectors. This decline may be due to the protectionist policies followed in most of the neighbouring nations, which used to be , in the past, Lebanon's main markets, and because these nations now prefer and have developed the means, to import their needs directly from the countries of origin, instead of using Lebanese intermediaries. The only gaining sectors during the decade have been the sectors of banking,real estate, government and services. Industrial and agricultural sectors, despite the rise in absolute figures, have declined percentagewise.

Beirut has been slowly becoming, in recent years, the financial center of the whole Middle East. Because of its free exchange system, bank secrecy law, and relatively stable foreign exchange rates, banking activities have flourished tremendously. This market has helped to attract to Lebanon, part of the capital accumulated by Lebanese emigrants abroad and a considerable proportion of the surplus funds available in the oil rich countries of the area. Much of the capital inflow has gone into real estate, and has resulted in a building boom in Beirut and nearby localities.

Under services, tourism is the most important income-creating activity. Tourism has prospered in Lebanon tremendously.

Also the government has expanded its activities.

We note, therefore, that the most distinctive feature of the Lebanese economy is the preponderance of the trade sector over the other sectors of the economy. Hence, trade alone produces almost about two-fifties of total national income, agriculture produces only about 19 per cent and industry only around 15 per cent. Here in lies the most important distinctive characteristics of the Lebanese economy: although diversified, it is predominantly mercantile.

How much is the share of foreign trade in the National Income of Lebanon ? It was estimated that import trade accounts for the largest share in the total trade income, amounting to a little over 40 per cent. Export trade, on the other hand, accounts for around 9 % of total trade income. Transit accounts for 19% and entrepot 5% of total trade income.

Foreign trade, therefore, constitutes a very important contributor to income in the trade sector, and which in turn, constitutes the major contributor to the economy. Hence, we can see the importance of foreign trade in Lebanese economy.

From a general view on the foreign trade sector in Lebanon, we can point the follwing main trends:

a- It reflects the early industrialization of the country which depends heavily on the Western countries for the import of a large variety of needed manufactured and other goods.

b- There exists a relatively large deficit in the balance of trade which has to be covered through invisible earings and capital inflow.

c- Transit and re-export trade play an appreciable role in foreign trade activity.

d- Foreign trade of Lebanon is characterized by its diversity; no single product forms more than 14% of the value of total imports or exports.

ii- Factors favouring foreign trade in Lebanon.

These may be divided into two broad categories; those arising from the geographical position of the country, and those attributable to the general level of economic development, and the economic policy of the government.

1- Geographical position.

Viewed geographically, Lebanon occupies a central position in the Middle East with well-equipped sea and air port;it is bounded by the Mediterranean Sea from the West by Palestine from the South, and by Syria from East and North The country is considered to be a link between the East and West. The channelling, for countries, of an important part of Middle Eastern commercial and financial operations through Lebanon created an experienced class of merchants,entrepreneurs and bankers.

The large seaport in Beirut and its international airport have greatly contributed towards making it the center of Eastern Mediterranean trade. With its large seaport free zone area, Beirut has become one of the most important entrepot in the Middle East. The free zone was started by the French in the thirties. But, it never attracted considerable business due to the strong competition of Haifa. "Since the outbreak of hostilities in Palestine and the closing down of Haifa to Arab countries, Beirut's free zone area has developed considerably." This development is also attributable to the recent accumulation by neighbouring Arab countries, of large riches, because of the oil industry.

Such a geagraphical position has placed Lebanon in a favourable position for international trade , and this explains the relative supremacy of Lebanese trade where Lebanon derives over a third of its income.

2- General level of economic development and economic policy of the government.

a- rising income in neighbouring countries: one of the economic factors is the rising income in neighbouring countries mainly because of the prosperous oil industry. With increased incomes, demand for goods and services has also increased, with the results that trade through Lebanon has increased. Moreover, foreign investment and capital transfers to Lebanon have likewise increased. All these have contributed towards the economic development of Lebanon.

b- Rising money supply:[7] Another economic factor is the rising money supply in Lebanon. With more money incomes, people's demand for goods and services has increased, which has resulted in increased volume of foreign trade.

c- Free market and free exchange system: Beirut has developed a relatively well established free market which is attracting to Lebanon highly profitable financial transactions with countries having exchange control either because these controls themselves allow cooperation with a free market or as a way to circumvent such controls.

Moreover, the completely free exchange market in Lebanon has materially contributed to the tremendous development of services transactions. The freedom of exchange operations has made possible exchange and commodity arbitrage as well as commodity transactions involving several foreign currencies, although in some cases the merchandise in question never touched Lebanese territory.

The government's policy, therefore, of establishing a free foriegn exchange market in Lebanon and the facilities extended to re-export and transit trade has made out of Beirut an important commercial center.

Lebanon, therefore, mainly because of its geographical position and the special mercantile qualities of its population, has developed to have experienced and shrewd middlemen and merchants, and has taken, thus, a good place in the international trade of the world.

C- EFFECTS OF THE FLUCTUATIONS ON TERMS OF TRADE.

I- ON EXPORTS.

Historical background and the war effects.

Lebanon in its actual and previous position , and through its foreign trade relations, have the same characteristic of most underdeveloped countries, concerning its trade balance,this means that"imports is much higher than exports ". But it is noticable from the available data, that Lebanese exports pass through three stages of development since the Independence.[8]

In the first stage (1950-1965)we feel the preponderance of the agricultural products, and the nutritional industry products which was based on the local agricultural products, and it was traditional industry in Lebanon.

The second stage (1966-1975) considered the golden period. The Lebanese exports registered an important jump in its value, and its quality, and that was due to the big development in the productive sectors, especially the industrial sector. The government took many decisions to activate and nourish the economic situation, and concentrate all its attention on the national industry. Due to this the industrial products had the highest proportion of the Lebanese exports during that period.

The third stage (1976-till now) began with the civil war , considered the worst. More than 50% of the industrial infrastructure was destroyed. Also the same happened for the agricultural sector, which led to a decrease in the national production, hence in the volume of national exports.

A breakdown of Lebanon's merchandise exports by main products group, gives a real picture for the development of the national product. Table 2-1 gives the percentage development from 1961-1983.

In table 2-1 the agricultural exports (which is the total of the first three items) accounts around 37.5% of the totol exports in the first period. Then decreased to 16.3% in the second period. This decrease can't be explained by the deterioration in the exports of the agricultural sector, but reflects the big and important leap in the industrial exports.During the third period the exports of this sector increased to 21.3%,and this increase can't also be referred to the increase in the agricultural sector, but due to the decrease in the exports of the industrial sector.

The agricultural exports characterized by its variety and its continuity during the year, and this gives it a power and protect it from any seasonal dangers.

TABLE : 2-1

Product group.	1st period average for years 1961, 1962 &1963 %	2nd period average for years 1971, 1972 &1973 %	3rd period average for years 1981, 1982 &1983 %
-Live animals and animal products .	3.8	4.6	2.2
-Vegetables.	32.8	11.3	18.3
-Animal & veg.fats,paints and oils.	0.9	0.4	0.0
-Foods products & beverages.	6.9	6.1	3.4
-Manufactured metal product.	1.3	2.5	8.0
-Chemical &related products.	2.4	6.6	7.0
-Paper & rélated products.	2.8	4.2	3.2
-Plastic & rubber products.	.7	2.1	3.1
-Animal skins,furrs & related products.	2.9	3.0	.6
-Wood,wooden prod.& charcoal.	1.3	1.2	.8
-Textiles & related prod.	10.2	10.5	10.7
-Shoes,hats & haberdashery.	.4	.9	5.8
-Glass prod.pottery,cement.	2.5	2.0	9.0
-Pearls,precious metals.	15.2	13.9	6.0
-Metals & related prod.	5.1	8.1	8.1
-Machinery,electrical & other equipment.	4.8	10.9	5.8
-Vehicles.	4.7	9.3	3.2
-Optical equipment.	.2	1.1	.3
-Arts works & antiques.	.3	.1	1.1
-Miscell.& manuf.prod.	.8	1.2	3.4
Total.	100	100	100

Source: Beirut Chamber of Commerce and Industry.

At the end, it is good to mention the present problems which faces Lebanese exports:

1- The narrowing in the international market of the Lebanese exports. In the early sixties and seventies, around 56% of the Lebanese exports channelled to the Arab countries,the rest which is 44% to the international markets, while in the early eighties 86% goes for Arab countries, and only 14% to the rest of the world. This feature can be explained by :The weak competitive power of our product, and the decrease in our national production, makes the Arab countries absorb the highest proportion of it.

2- The results of the Israeli invasion. Directly after the military invasion, Israel began its economic invasion, and opened the passageway for Israeli goods to enter Lebanon. Also during the last week of invasion, Israeli army bombared most of industrial plants, and applied the burned land policy to destroy the cultivated areas in South Lebanon and Bekaa' area. This pushs an economic analyst to comment : that the main objective of the Israeli invasion is to destroy completely the Lebanese economy, because the Lebanese exports competes strongly their exports(especially the citrus crops) in the international markets.

<u>The Model.</u>

After the discussion of the historical background of the Lebanese exports, the time now is to study how the fluctuation of U.S.dollar exchange rate affects the Lebanese exports in a statistical model. As it was explained in the methodology, that the only independent variable,the researcher will take into consideration is the exchange rate of U.S.dollar and all other variables will be considered constant. Then in order to know the importance of this independent variable, another two independent variables, money supply and G.N.P. with the exchange rate, will be regressed at once against the dependent variable to get the global R^2.

First, the dependent variable (y) was regressed against the U.S.dollar exchange rate in Beirut stock exchange market. The period covered was for the years 1975 to 1982, divided quarterly. The following relation was obtained:

If Y = Exports.

X = L.L./ U.S.dollar.

We have:

$Y = 4.28\ X - 666.12$

With an $R^2 = 0.765$

This means that 76.5% of the fluctuation in exports,can be explained by the exchange rate of the U.S.dollar, a positive relationship,when the exchange rate increase,the value of exports also will increase.

As a second step in explaining how much of the fluctuation in exports can be referred to U.S.dollar exchange rate , money supply and G.N.P., all those independent variables were regressed at once against the dependent variable to give the following global situation.

If Y = Exports.

X_1= Exchange rate of U.S.dollar in L.L.

X_2= Money supply.

X_3= G.N.P.

We have :

$$Y = 7.248\ X_1 - .047\ X_2 + .295\ X_3 - 2264.198$$

With an R^2= 0.9965

The above relation indicates a positive relation between the dependent variable and each of the independent variables, this means that when G.N.P. increase, exports increase. Also when money supply increase, exports increase. The total coefficient of determination of 0.9965 implying that 99.65% of the fluctuation in the exports is explained by the above mentioned variables. By other words, only 23.15% of the fluctuation in exports can be referred to money supply and G.N.P. while 76.5% be referred to the fluctuation of U.S.dollar exchange rate.

To study this case graphicaly, a time series analysis will be done, to get the exports function for the period from 1975 till 1982. Then to compute the expected figures for years 1983,1984 and 1985 to compare it with the actual figures.

I choose to stop in this analysis at year 1982,because since the 2nd. half of this year, many basic and important events happened in Lebanon, and of course affects the Lebanese economy.

The period covered divided quarterly, and the following function was obtained:

If Y = Exports.

X = Time.

We have :

$$Y = 41\ X + 134.4$$

By applying this formula to calculate the expected figures for years 1983,1984 and 1985, we get the following:

1983	1984	1985	In millions
1446	1610	1774	
1487	1651	1815	
1528	1692	1856	
1569	1733	1897	
6030	6686	7342	

By comparing the expected figures with the actual figures, we find that the actual figures is much less than the expected, it is apparent in figure No' 2-2.

This decrease was due to the decrease in the volume of the Lebanese exports, because of the huge destruction in most of the industrial plants during the Israeli invasion, also most of the cultivated area was used as a military camps.But year 1983, witnesses great efforts to rebuild what was destroyed, then these efforts stopped when the battles resumed again.

Figure No' 2-2

In order to study the effects of the fluctuation of U.S. dollar on Lebanese exports, we must limit this analysis for the period from 1981 till 1985.

We begin by studying:

1- The evolution of Lebanese exports during this period.

a- In current value.

In table 2-2 which figures the monthly exports, we trace three periods of evolution:

- The first period extend till May 1982 (Israeli invasion) characterized by a constant growth in the par value of the exports. The monthly average value of exports for the period from January 1982 till May 1982,was L.L.583 million, and the peak was in March L.L.674 million.

- The second period (June 1982- Dec.1984) knows a touchable decline in exports value, the monthly average was L.L.241 million. The minimum rate was in September 1983, L.L.95 million.

- The third period began in January 1985. Lebanese exports increased in current value. The monthly average was L.L.415 million.

The maximum value for the period from Dec.1982 till Dec. 1985, was registered in March 1982, L.L. 674 million. While in May 1985, Lebanese exports touched the highest value in the last 36 month. (years 1983,1984 and 1985).

b- In constant values.

In order to get the real rate of growth for Lebanese exports, we must deflate the value according to the monthly index of the exchange rate.(the index we must use here is the export index, but this index is not available for year 1985). The

Table 2-2 Monthly exports for the period 1981-1985 in current value.(million of L.L.)

Month	1981	1982	1983	1984	1985
January	365	560	300	166	243
February	391	510	232	152	322
March	410	674	261	200	484
April	510	517	321	241	526
May	544	654	282	219	560
June	520	307	250	197	347
July	438	257	204	198	464
August	345	506	155	223	361
September	528	267	95	154	368
October	396	406	197	242	421
November	471	317	172	260	407
December	526	281	224	217	470
Total	5444	5256	2694	2456	4973
Monthly average	454	438	224	205	415

Source: Lebanese Chamber of Commerce and Industry.

exchange rate index calculated by Banque Du Liban.

Table 2-3 which reveals exchange rate index for U.S.dollar, base January 1984, and the exports in constant value of the U. S.dollar.(January 1984, exchange rate of U.S.dollar was 568.93 L.L.) From table 2-3 and figure 2-3 ,we notice that the exports stayed within its actual rate. In May 1985,was around L.L. 190 million, while in January 1984,was L.L.166 million.

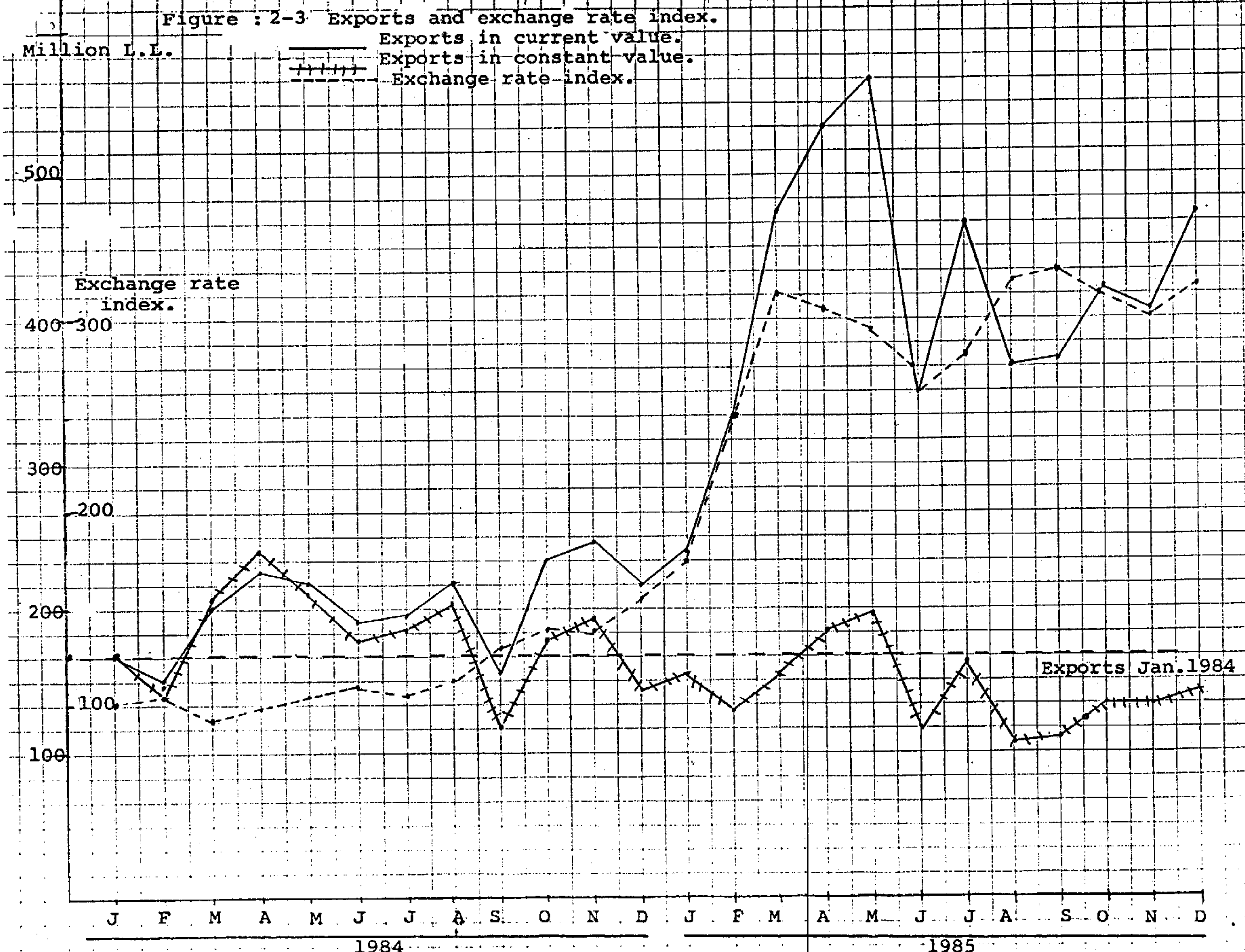


Figure : 2-3 Exports and exchange rate index.
Exports in current value.
Exports in constant value.
Exchange rate index.
Million L.L.
500
Exchange rate index.
400 300
300
200
200
100
100
Exports Jan.1984
J F M A M J J A S O N D J F M A M J J A S O N D
1984
1985

Table 2-3 Exchange rate index for the U.S.dollar and the exports in constant value.

Month.	Dollar Jan.84=100	Exports in constant dollar (Jan. 1984)
1984 Jan.	100.0	166
Feb.	106.8	142.3
Mar.	97.5	205.1
Apr.	99.4	242.4
May.	102.2	214.2
Jun.	106.1	185.6
Jul.	104.9	188.7
Aug.	110.9	201
Sep.	123.2	125
Oct.	138.4	174.8
Nov.	134.5	193.3
Dec.	152.3	142.4
1985 Jan.	179	135.7
Feb.	250	128.8
Mar.	312.8	154.7
Apr.	307.8	170.8
May.	294.8	190
Jun.	276	125.7
Jul.	280	165.7
Aug.	323.6	111.6
Sep.	326.6	112.7
Oct.	317.2	132.7
Nov.	307.5	132.4
Dec.	319.2	147.2

2- Evolution of exports compared to the exchange rate.

As we notice in table 2-4 that since January 1984, Lebanese exports in current value registered some important ups and down. But since January 1985,there was a positive growth by 50.3 % increase in March than it was in February. In April and May, the growth rate decreased to 8.6% and 6.5%, this was accompained by a decrease in exchange rate of U.S.dollar in Beirut market, by -1.6% and -4.6 % . While in June 1985, the exchange rate of U.S.dollar registered the minimum growth rate which is -6.4% ,also the rate of exports was the minimum which is -38.1%.

During the second half of year 1985, the variations in the percentage changes in exports was parallel to the changes in the exchange rate, and this appears clearly in figure No'2-3 where we notice the relation between exports line in current value. and exchange rate index line is directly positive.

Table : 2-4

The monthly percentage variations with respect to the previous month, for the years 1984 and 1985.

Year	Exchange rate for U.S. dollar	Exports
1984 Jan.	4.8	-25.8
Feb.	6.8	-8.4
Mar.	-8.7	31.5
Apr.	1.9	20.5
May.	2.8	-9.1
June	3.7	-10.0

	Jul.	-1.1	0.5
	Aug.	5.7	12.6
	Sep.	11.1	-30.9
	Oct.	12.3	57.1
	Nov.	-2.8	7.4
	Dec.	13.2	-16.5
1985	Jan.	17.4	11.9
	Feb.	39.4	32.5
	Mar.	25.4	50.3
	Apr.	-1.6	8.6
	May.	-4.1	6.5
	Jun.	-6.4	-38.1
	Jul.	1.4	33.7
	Aug.	15.6	-22.1
	Sep.	0.9	1.9
	Oct.	-2.8	14.4
	Nov.	-3.1	-3.3
	Dec.	3.8	15.5

From this, we may assume that the increase in the exchange rate of U.S.dollar in Beirut market, caused this increase in exports value. To verify this assumption, a regression analysis, will be done for years 1983,1984 and 1985. Then a time series analysis will be done for exports years 1983 and 1984, in order to estimate the expected exports value for year 1985, and compare it with the actual figures.

We begin with the regression analysis.

If X = Exchange rate of U.S.dollar / L.L.

Y = Exports.

We have: $Y = 0.52\, X + 365.70$

With an $R^2 = 0.792$

This implies a positive relationship between the two variables . Also we notice that during this period the R^2 increased from 76.5% (in the first period) to 79.2%.

By the way, due to the lack in the available data concerning money supply and G.N.P.for the second period, we can't calculate the regression function and the R^2.

Now, I will turn to the time series analysis for the years 1983 and 1984.

If X = Time.

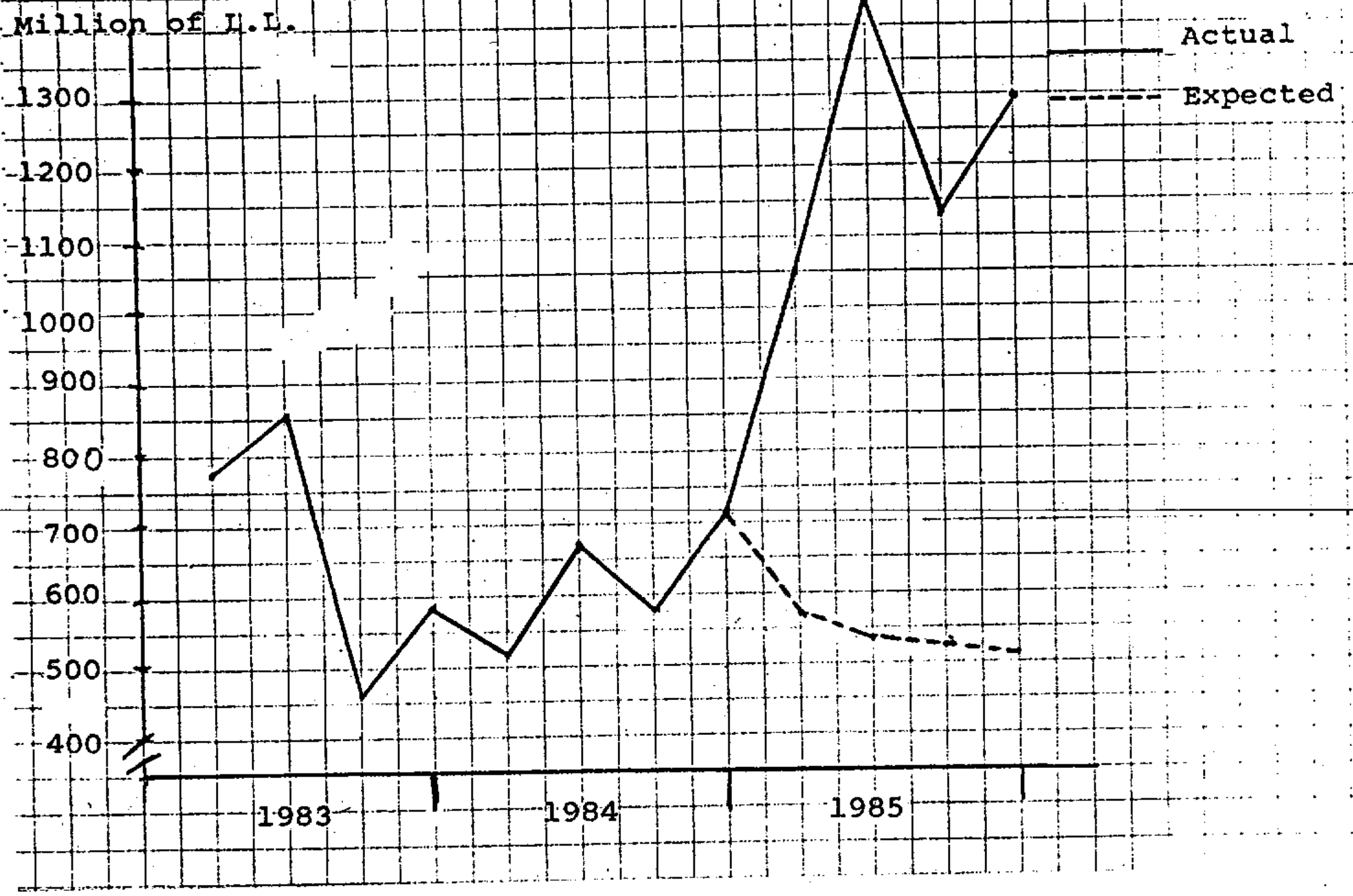
Y = Exports.

We have : $Y = -17.4\, X + 704.8$

By applying this function to compute the expected figures for the year 1985. We get the following numbers.

	Expected	Actual	(in million)
1st. quarter	565.6	1049	
2nd. quarter	548.2	1433	
3rd. quarter	530.8	1193	
4th. quarter	513.4	1298	

Graph 2-4



The difference we notice here, we can refer it to the increase in the exchange rate of the U.S.dollar.

So it is obvious that the increase in the exchange rate of U.S.dollar, pushs the current value of the Lebanese exports up. But we notice that the real value of exports was at the same rate of 1984.

II- ON IMPORTS.

Historical background and the war effects.

Before we proceed with our analysis, there are few points which need to be taken into consideration.

The available statistical data suffer from several defects among which are the following:

a- Estimated value of trade done through smuggling is left out during the first and second period, but it is considered during the third period.

b- Customs statistics for imports are given C.I.F., and according to I.M.F. standards, imports should be valued F.O.B. in order to facililtate comparison; this, therefore, does not allow Lebanese imports to confirm with I.M.F. standards.

However, our analysis will not be hampered very much by such defects, since our main aim will be to find the relationship between imports and the fluctuation of U.S.dollar in Beirut Exchange Market.

In table 2-5 an analysis for the Lebanese imports during three stages of evolution.

- The first stage (1952-1960)we feel the proponderance of the live animals and vegetables products 26.21 %, while industrial imports 23.21%.

- The second stage (1960-1975) considered the industrial era with respect to the Lebanese economy, electrical machines and raw material, for industry increase to 36.18%, also chemical and related products increased to 11.39%.

- The third stage (1975-1983) Lebanon turns to import most of its daily consumption, after the destroy of most of agricultural and industrial plants, about 85% of imports was consumption.

Most of Lebanese imports comes from Europe, around 59% of the total, 11% from U.S.A. The major merchandise imported from these countries are industrial products, while products of the animal and plant kingdom are improted from the neighbouring countries.

Before we move to the model, we have to mention the re-export and transit operations, where was prosperous before the civil war. Reexporting means sending to foreign countries the imported merchandise, after a temporary admission to the customs house or the free zone. Most reexports were directed towards the Arab countries. Transit trade includes merchandise which passes through the country without being changed in any way.

TABLE : 2-5

Product group.	1st.period average for 1952-1960 %	2nd.period average for 1960-1975 %	3rd.period average for 1975-1983 %
-Live animals & its products.	8.05	5.76	16.23
-Vegetables and fat.	18.16	10.58	
-Food products and beverages.	4.95	4.76	2.68
-Manuf.metal products.	11.71	5.93	14.63
-Machines,electrical& others.	11.33	13.21	23.33
-Motor cars&spare parts.	7.67	6.64	
-Metals & minerals prod.	11.88	22.97	14.71
-Chemical&related prod.	6.55	11.39	7.96
-Textile & clothing.	15.15	10.84	20.46
-Wood & wooden prod.	4.55	1.83	
-Miscell.manufact.prod.	—	6.09	
Total.	100	100	100

Source: Beirut Chamber of Commerce and Industry.

The Model.

The same procedures and calculations applied in analysing the evolution of exports,will be also applied here. But before we begin, it is necessary to mention again, that the figures of imports given by the Chamber of Commerce and Industry are approximate, due to several defects in the available published statistical data about imports, also because of the smuggling prevailing along the Lebanese coast.

First, the regression function and the R^2 for imports,years 1975 till 1982, divided quarterly. The following relation was obtained :

If Y = Imports. Dependent variable.

X = L.L./U.S.dollar. Independent variable.

We have:

$$Y = 11.43\,X - 2011.5$$

With an $R^2 = 0.682$

This means that 68.2% of the fluctuation in imports can be explained by the exchange rate of the U.S.dollar. In other words there is a positive relation between the two variables, when the exchange rate of U.S.dollar increases, the value of imports also increase.

As a second step a multiple regression function computed, including money supply,G.N.P. and the exchange rate of U.S. dollar, all those variables regressed at once against the dependent variable (imports) to give the following situation:

If Y = Imports.

X_1= Exchange rate of U.S.dollor in L.L.

X_2= Money supply.

X_3= G.N.P.

We have:

$$Y = 2.423\ X_1 + 0.403\ X_2 + 0.748\ X_3 - 3890.632$$

With an R^2= 0.9952

This relation is a positive relation between the above mention variables, this means that when G.N.P. increase, imports increase, also when money supply increase, imports increase. The total coefficient of determination of 0.9952 implying that 99.52% of the fluctuation of imports is explained by the above mentioned independent variables.

To study this case graphicaly, a time series function will be calculated for the period from 1975 till 1982. Then the expected figures for years 1983,1984 and 1985 will be computed to compare it with the actual figures.

This period was divided quarterly.

If Y= Imports.

X= Time.

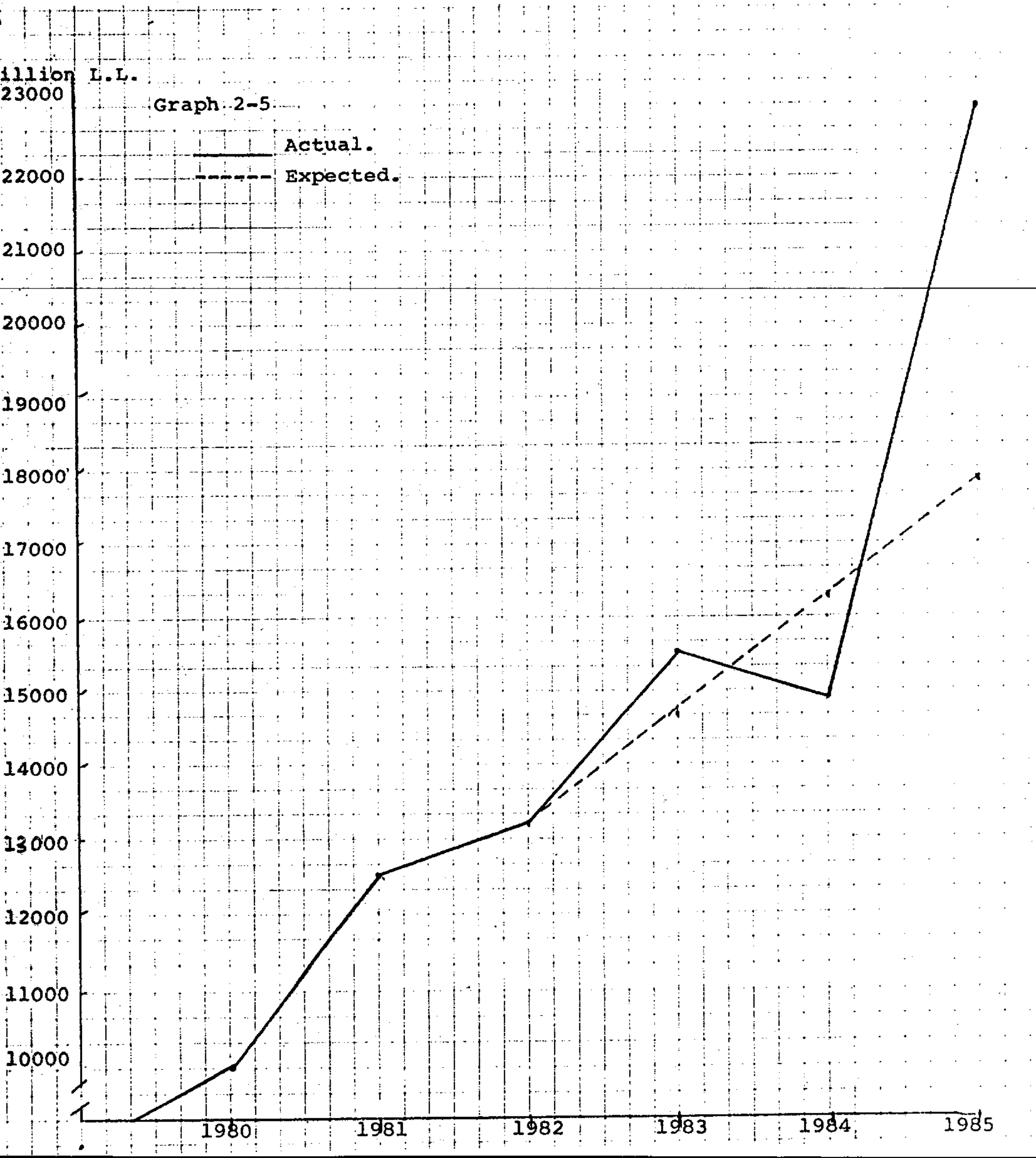
We have:

$$Y = 101.68\ X + 247.28$$

By applying this formula to calculate the expected figures for years 1983,1984 and 1985.

1983	1984	1985
3501	3908	4314
3603	4009	4416
3704	4111	4518

3806	4213	4620
14614	16241	17868



From comparing the expected figures with the actual figures, we notice that in year 1983, actual is greater than estimated by L.L.886 million, year 1984 actual is less than expected by L.L.1441 million, while in year 1985, actual is greater than expected by L.L.5132 million. The only explanation, for this increase in the current value of imports for year 1985, is the increase in the exchange rate of U.S.dollar.

To make this picture more clear, the analysis must be limited for the period from 1981 till 1985.

1- The evolution of Lebanese imports during this period.

a- In current value.

The figures of imports shown in figure 2-6, reveals three periods of evolution:

- The first period (years 1981,1982 and 1983). Characterized by a constant growth in the par value.

- The second period (year 1984) The value of imports decreased, may be because this year witnessed a considerable security and political instability, or because the sumggling increased on large scale.

- The third period (year 1985) The value of imports jumps a big leap to register L.L. 6440 million in the 4th. quarter.

Table 2-6 Quarterly imports for the period 1981 till 1985 in current value. (million of L.L.)

Quarter	1981	1982	1983	1984	1985
1st.	2875	4009	3828	3641	5658
2nd.	2412	3524	3891	3596	5589
3rd.	3125	2030	3875	3419	5313
4th.	4088	3537	3906	4144	6440
Total	12500	13100	15500	14800	23000
Average	3125	3275	3875	3700	5750

Source: Lebanese Chamber of Commerce and Industry.

b- In constant value.

Table 2-7 gives us the real rate of growth for the Lebanese imports, after we deflate the quarterly value according to the quarterly index of the exchange rate.

Table 2-7 Quarterly exchange rate index, and the imports in constant values.

Period		Dollar Jan.83=100	Imports in constant dollar Jan. 1983
1983	1st.	100	3828
	2nd.	105.01	3705
	3rd.	116.36	3330
	4th.	131.37	2973
1984	1st.	143.94	2530
	2nd.	145.62	2469
	3rd.	160.35	2132

4th.	201.12	2060
1985 1st.	350.34	1615
2nd.	415,65	1345
3rd,	440.18	1207
4th.	446.69	1442

From the figures calculated in table 2-7 and figure 2-6 , we find that, the growth rate at constant value, is declining, this decrease may be due to a touchable decrease in the quantity of imports.

2- Evolution of Lebanese imports compared to the exchange rate.

From table 2-8 and figure 2-6 we find that Lebanese imports register the highest percentage increase, correlated with a big jump in the percentage changes in the exchange rate of U.S.dollar. For example the fourth quarter of 1984, exchange rate increased to 25.4%, imports increased by 21.2% , and during the first quarter in 1985, exchange rate increased by 74.2%, imports increased by 36.5%.

In table 2-7 , the Lebanese imports registered a touchable decline, in constant value. This is due to the decrease in volume of goods imported, less quantity by a higher cost.(exchange rate.)

From this, we notice the relationship between the increase in the current value of imports and the increase in exchange rate. To verify this, a regression analysis for years 1983, 1984 and 1985 will be done to calculate the R^2.

Figure 2-6 Imports and exchange rate index.

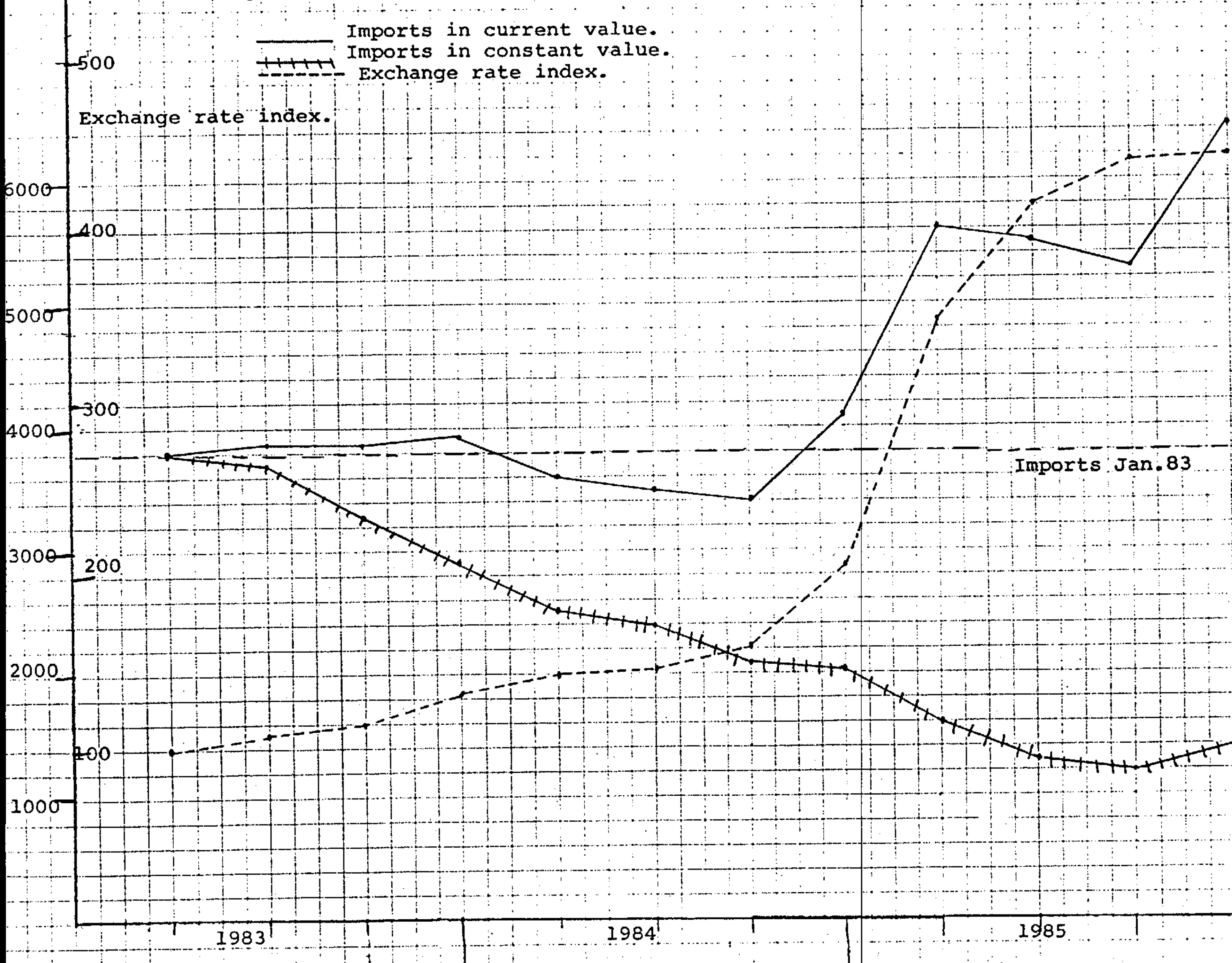


Table 2-8 The quaterly percentage variations with respect to the previous quarter for years 1983,1984 and 1985.

Years	Exchange rate of U.S. dollar	Imports
1983 1st.	-2.8	8.2
2nd.	5.01	1.6
3rd.	10.8	-0.4
4th.	12.9	0.8
1984 1st.	9.6	-6.8
2nd.	1.2	-1.2
3rd.	10.1	-4.9
4th.	25.4	21.2
1985 1st.	74.2	36.5
2nd.	18.6	-1.2
3rd.	5.9	-4.9
4th.	1.5	21.2

We begin with the regression analysis for years 1983,1984 and 1985.

If X = Exchange rate of U.S.dollar in L.L.

Y = Imports.

We have: $Y = 1.68\ X + 2897.73$

With an $R^2 = 0.88$

This means that 88% of the fluctuation in the imports value can be explained by the exchange rate of U.S.dollar. Also during this period (1983-1985) the R^2 increased from 68.2% (1975-1982) to 88%, this reflects the effects of U.S.dollar exchange rate on Lebanese imports.

NOTES.

1- Arab Economic Report. , General Union of Chambers of Commerce,Industry and Agriculture for Arab countries, January 1983.pp 392-393.

2- Marwan Iskander and Elias Baroudi, The Lebanese economy in 1982,1983. Beirut 1984.

3- Lindert & Kindleberger, International Economics (Home wood Illinois: Richard D. Irwin, Inc.1982) p.244

4- Einzing Paul : The History of Foreign Exchange. St.Martin's Press, N.Y. 1970.

5- Lindert & Kindleberger, Inter. pp:330-331-332.

6- Hisham Haider,"The continuous war of dollar" As-Safir daily paper , 8 october 1985 p:11.

7- Saba, Elias, Repuirements and desirability of a convertible Lebanese currency. (M.A.Thesis in Economic, A.U.B.)

8- Abed Al Amir Dakroub, " Lebanese exports between war and peace" As-SAFIR daily paper, 21 Dec. 1985. p:11.

CHAPTER 3

CONCLUSION,RECOMMENDATIONS AND SUMMARY.

CHAPTER 3

CONCLUSION,RECOMMENDATIONS AND SUMMARY.

i - Conclusions.

It is obvious from the data compiled in chapter two that the increase in the exchange rate of U.S.dollar in Beirut Market leads to an increase in the Lebanese exports and imports. But our main objective in the conclusion is to know if this informal devaluation of the Lebanese pound improve the trade balance.

From the theoretical point of view, the effects of the fluctuation in the exchange rate of foreign currency on foreign trade will be :

On Exports.

The increase in the exchange rate (causing the Lebanese pound to depreciate) will lead to an increase in the volume of exports, because the Lebanese services and commodities will be cheaper. So , the demand for the Lebanese goods will increase, because the foreign importer, who was paying one dollar to get 6 L.L. the price of 1 Kg. of a certain commodity, will be paying the same dollar for 18 L.L. getting 3 Kg. of the same commodity. (This if we assume that the prices will be fixed). From this we see that the country which devalued its national currency, its exports will increase. The opposite will happen if the country appreciates its currency.

On Imports.

The increase in the exchange rate, will lead to a decrease in imports, because the national importer will pay more in national currency to get the same quantity than before. So, the price of the foreign services and commodities will be higher.(in national currency)

From the above mentioned data we notice that the increase in the exchange rate of U.S.dollar in the Lebanese market must benefit Lebanon, because its exports will increase, while the imports will decrease, leading to a positive effect on the trade balance. But what actually happen for the Lebanese trade balance is that the deficit increased from L.L.7844 million in 1982 to L.L.12806 million in 1983, then to L.L. 18027 million in 1985. So, this devaluation didn't improve the trade balance. By explaining the causes which lead to this, some theoretical background will be needed:

Economists have derived a general formula for the net effect of the devaluation on the trade balance, which is:[1]

T.B. in L.L.=	P_x	$\times$	X	-	P_m	$\times$	M
	=price of exports	$\times$	quantity of exports	-	price of imports	$\times$	quantity of imports
Effects of a devalution= in L.L.	No change	$\times$	No change or up.	-	No change	$\times$	No change or down

Although we feel that this general formula is extremely valuable, in real it is difficult to derive. The real-world likelihood of a "stabilizing" results, in which devaluing improves the trade balance as intended, is better judged by

Table 3-1 The deficit in the Lebanese trade balance in million.

1975	1976	1977	1978	1979	1980	1981	1982	1983
2425	1000	2136	2939	4474	5840	7056	7844	12806

1984	1985
12344	18027

first looking at some important special cases. By studying these cases, one can reap the logic behind this formula.

Case 1: Inelastic demand.

Here the buyers' habits are rigidly fixed, so that they will not change the amounts they buy from any nations' suppliers despite changes in price. In such cases of perfectly inelastic demand, devaluation of the country's currency backfires, buyers go on buying the same amount of imports at the foreign price, paying a higher price in national currency (counter value) without cutting back their imports. No change in the foreign exchange value of imports results. On the exports side the devaluation leads suppliers to end up with the same compettive national currency price as before, but this price equals fewer foreign currency. National exporters get fewer foreign currency for each unit they export, yet the foreigners do not respond to the lower price by buying any more units than they would otherwise.

Here, in Lebanon we have inelastic import demand, and to some extent elastic export demand. This explain the increase in imports from L.L.14800 million to L.L.23000 million in 1985 because we are paying much more in Lebanese pound for the same volume of imports. Although the Lebanese exports doubled in year 1985 than it was in 1984, but still much less than imports. This was due to the huge destruction in most of the industrial plants, and to the political obstacles that faced the Lebanese exports, especially in the Arab countries.

Case 2: A small country.

The most relevant special case is the one in which a country's devaluation has no effect on the world prices, in foreign currencies, of its exports and imports, perhaps because the country's trade represents too small a share of world trade in each traded good or service to change the world price at which world demand and supply are equal. Many countries are likely to face such perfectly elastic foreign curves, at least in the long run.

The small country case is one in which devaluation is likely to have a strong tendency to improve the trade balance, lending stability to the foreign exchange market. If the small country can not change the foreign currency prices of either exports or imports, only the changes in volumes change the trade balance. We know for example, that if the foreign currency price of U.S.wheat and other exports were fixed, devaluation would bring exporters higher dollar prices. They would respond by moving up their supply curve and exporting more at the same world price (a higher dollar price). On the import side, the maintenance of the same foreign prices after a devaluation of the national currency means that importers end up facing higher prices by the percentage of the devaluation. They would buy lower quantities in response to what look like higher prices to them. With export volumes rising and import volumes falling at fixed prices, the devaluation would unambiguously improve the balance of trade.

Although Lebanon is a small country, most of the products it exports don't have a world price, and face a high competition in the international markets. According to what we concluded above, devaluation was supposed to have improved the position of the Lebanese products in the international markets, but since most of the raw materials used in production were imported, and its price was paid at a higher foreign price, the devaluation did not affect the exports. On import side, Lebanon imports most of its daily consumption, that is around 85 % of its imports are for daily consumption. The import demand of the country is inelastic.

By studying these two cases, we can generalize the fact that in order for a country to reap the benefits of the devaluation of its currency, the demand for imports and exports must be elastic.

Also, we can conclude that:

- First: When the foreign demand for the Lebanese exports increase, the export sector must be elastic and have the ability to increase the production, in order to satisfy the increase in demand. But this is not feasible in the industrial sector, due to the destruction of around 75 % of the industrial plants. The same happened to the agricultural sector, where the damage was much less. Note here the difficulty in increasing the agricultural production, due to the long period it needs. Also most of the agricultural areas in the South and Bekaa' areas were exposed to continuous invasion and raids by Israeli troops. The service sector, which was playing the most important role in the balance of payment, decreased to nil. For example, the tourist sector which was previously yielding surplus, turned into deficit, due to the disruption of foreign tourism. In the other words, inelastic supply of service facility and elastic demand for those services by foreigners.

- Second : The Arab countries absorbs 90 % of Lebanese exports. This exporting process was brought to hold due to the political situation in the country. For example, the decision taken by Kingdom of Saudi Arabia in 1983, prevented the entrance of the Lebanese goods to its markets, affecting almost 40 % of the country's total exports.

ii- Recommendations.

It is obvious from the data compiled in the conclusion that devaluation increased the deficit in the Lebanese trade balance and didn't correct it. So, we must work to appreciate the exchange rate of the U.S.dollar by imposing many monetary and fiscal policies and procedures, set by a strong governme-nt. Herebelow some of these procedures as an example:

1- Impose a high tax rate on bank deposists in foreign currencies. The Lebanese tax law exempt the interests of the saving accounts in Lebanese pound and foreign currencies.Here the government can push the depositors in foreign currencies to get rid of it, if they impose a high tax rate on it.

2- Imposing tax on the process of purchasing foreign currencies, but here we must differentiate between two cases:
a) If the process done by an importer to open a L/C. to cover the value of some imports, this process must be exempted.
b) If the process done by a speculator, this case must be a subject for such kind of taxes.

3- The central bank must not interfere in the exchange market to support the value of dollar. We notice in year 1985 that sometimes the central bank buys dollar from the market to stop the decrease of the exchange rate, and they justify this by saying that " sharp decrease will lead to a monetary distu-rbance and bankruptcy to some sepeculators". But in real they buy foreign currency to secure the needs of the government for such currencies, and to save a lot of money when they buy at low prices.

4- Apply a low exchange rate for some industrial plants. The sharp increase in the exchange rate hurts deeply the Lebanese economy as a whole, and also some industrial plants. So, the government must sell such plants foreign currencies at a low prices, to encourage them to produce more at a low cost, especially if the products of such plant are for export.

Of course, there is much more procedures can be applied to reach our objective, but all this needs one important thing, which is the presence of a strong government controls the political and security situation, and stop the role of "the foreign exchange Mafia."

However, since the scope of this project was within the Buisness Administration and not the political sciences area,I will confine my discussion to the above mentioned and wait till the near future positions Lebanon, the Lebanese economy and the Lebanese exchange rate in their respective normal places.

iii- Summary.

The primary purpose of this study was to examine the affects of the fluctuation in the value of Lebanese pound against foreign currencies on the foreign trade sector. The period covered in this study is from 1975 to 1985,divided into two subperiods. The first sub-period, from 1975 to 1982, the second sub-period from 1983-1985. A regression analysis was undertaken to calculate the R^2 for each sub-period. On the exports side, the coefficient of determination for the independent variable (exchange rate) and the dependent variable(exports) was 76.5%, a positive relationship in the 1st.sub-period,increased to 79.2% in the second sub-period. While the R^2 of the independent variables (exchange rate, money supply and G.N.P.) and the dependent variable (exports) was 99.65%. On the import side, the R^2 for the two variables, exchange rate and imports was 68.2% in the first sub-period, increased to 88% in the second sub-period. While the R^2 for the variables, exchange rate, money supply, G.N.P. and the imports is 99.52%.

Also, in order to study the case graphicaly a time series analysis was done.

The conclusion was the answer of the following question, did this informal devaluation improves the balance of trade ? The reply was negative, So, the suggestions presented in the recommendations were for improving the exchange rate of U.S. dollar in the Lebanese market, in order to draw it back to its normal rate.

NOTES.

1- Lindert and Kindleberger, Inter. PP:284,285,286,287,288,289.

BIBLIOGRAPHY

- Arab Economic Report, General Union of Chambers of Commerce, Agriculture and Industry for Arab countries, Jan.1982
- Azar, Samih. The determination of the Lebanese exchange rate, Graduate School of Buisness and Management, A.U.B.
- Bulletin Trimestrial, Banque Du Liban (1975-1985)
- Dakroub,Abed Al Amir. "Lebanese exports between war and peace." As-Safir daily paper, 21 Dec.1985 P:11
- Einzing, Paul. The history of foreign exchange. New York: St.Martin's press 1970.
- Einzing, Paul. A text book on foreign exchange. New York.
- Haider, Hisham. "The continuous war of dollar" letter to Editor. As-Safir daily paper, 8 October 1985, P:11
- Ibrahim,Salem Khalil. Foreign Exchange practices in the economy of Lebanon. Dept. of Economics, A.U.B
- Lindert and Kindleberger, International Economics. Illinios, Irwin,Inc.1982.
- Mallat,R. Seventy years of money modelling in Lebanon: 1900-1970.Alep publishing, Beirut.
- Makdisi, A.Samir. Financial policy and economic growth: The Lebanese Experience. Beirut.
- Saba, Elias. "Requirements and desirability of a convertible Lebanese currency" (M.A. thesis in Economic A.U.B.)

Appendix A

The trimestrial average exchange rate of U.S.dollar calculated by Banpue Du Liban,exports and imports published by Chamber of Commerce and Industry.

Period	L.L./$	Exports in million	Imports in million
1975 1st.	226.6	376	1109
2nd.	223.02	375	1170
3rd.	226.39	342	1082
4th.	241.83	332	489
1976 1st.	248.13	210	463
2nd.	248.13	174	367
3rd.	327.29	197	414
4th.	297.09	219	556
1977 1st.	302.78	503	792
2nd.	305.66	660	1125
3rd.	311.77	570	1147
4th.	307.22	631	1436
1978 1st.	296.45	495	1392
2nd.	292.07	564	1459
3rd.	293.94	491	1081
4th.	299.68	611	1168
1979 1st.	311.97	717	1462
2nd.	322.99	741	1725
3rd.	325.47	711	1823
4th.	336.66	857	2490

1980	1st.	332.14	1052	2250
	2nd.	341.74	1019	2290
	3rd.	342.29	1086	2520
	4th.	358.14	1003	2940
1981	1st.	389.16	1166	2875
	2nd.	418.07	1574	2412
	3rd.	456.29	1311	3125
	4th.	462.02	1393	4088
1982	1st.	480.23	1744	4009
	2nd.	501.57	1478	3524
	3rd.	498.06	1030	2030
	4th.	411.54	1004	3537
1983	1st.	400.06	793	3828
	2nd.	420.12	853	3891
	3rd.	465.51	454	3875
	4th.	525.57	594	3906
1984	1st.	575.86	518	3641
	2nd.	582 57	657	3596
	3rd.	641.41	575	3419
	4th.	804.59	706	4144
1985	1st.	1401.58	1049	5658
	2nd.	1662.83	1433	5589
	3rd.	1761	1193	5313
	4th.	1787.03	1298	6440

Appendix B

Money supply and G.N.P. given by Chamber of Commerce and Industry.

Period	Money supply in million	G.N.P. in million
1975	3164	7500
1976	4210	4100
1977	4718	8200
1978	5360	8800
1979	5183	11150
1980	6181	14000
1981	7137	16800
1982	10127	15500

```
FILE: LINAN    SCSSLIST A1  AUB FEB/20/85

130-MAY-86   10:40:41

 LOGFILE OK
 DISPLAY? (SUM,STAT,BOTH, HISTORY, ALL, item list)
 both

 DEPENDENT:  Y   3 VARIABLES IN.  LAST IN:  X3        X2        X1

 MULTIPLE R =     .99828     R SQUARE =       .99656    F =          386.52670
 SIGNIF F =       .00002

 IN EQUATION
    VARIABLE               B         BETA          F     SIGF
    X3                .29511       .75200    188.689     .000
 *  X2               -.04703      -.05822       .325     .599
    X1               7.24873       .33366      8.501     .043
   (CONSTANT) -2264.19867                     42.602     .003

 DISPLAY? (SUM,STAT,BOTH, HISTORY, ALL, item list)
 /logfile off
```

FILE: FF SCSSLIST A1 AUB FEB/20/85

130-MAY-86 10:45:32

LOGFILE OK
DISPLAY? (SUM,STAT,BOTH, HISTORY, ALL, item list)
both

DEPENDENT: Y 3 VARIABLES IN. LAST IN: X3 X2 X1

MULTIPLE R = .99760 R SQUARE = .99521 F = 276.90590
SIGNIF F = .00004

IN EQUATION

VARIABLE	B	BETA	F	SIGF
X3	.74811	.78420	147.198	.000
X2	.40307	.20529	2.902	.164
~~* X1~~	~~2.42331~~	~~.04589~~	~~.115~~	~~.751~~
(CONSTANT)	-3890.63204		15.270	.017

DISPLAY? (SUM,STAT,BOTH, HISTORY, ALL, item list)