

**Forward Foreign Exchange Contract:
An Instrument For Hedging**

A Thesis

**Submitted To The Department Of Management
And Graduate School Of Business Administration
Of Bilkent University
In partial fulfillment Of The Requirements
For The Degree Of
Master Of Business Administration**

By

PINAR ORUC

Feb. , 22, 1990

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I certify that I have read this thesis and that in my opinion, it is fully adequate, in scope and in quality, as a thesis for the degree of Master Of Business Administration.



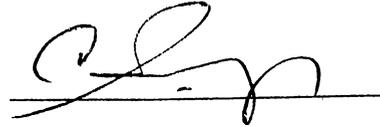
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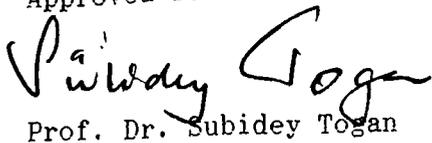
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ABSTRACT
FORWARD FOREIGN EXCHANGE CONTRACT:
AN INSTRUMENT FOR HEDGING

PINAR ORUC

MBA in Management

Supervisor: Assoc. Prof. Dr. Kursat Aydoğan

February 1990, 65 pages

Forward foreign exchange markets are continually improving all around the world. In this work, a literature survey is done both for the world and for Turkey. An overview of the changes in the financial systems is given and one of the outcomes of those changes; the forward markets are introduced in terms of its institutions.

Keywords: Exchange Risk, Hedge, Forward Contract

ÖZET

VADELİ DÖVİZ ANLAŞMASI:
DÖVİZ RİSKİNE KARŞI KORUNMA ARAÇLARINDAN BİRİ

PINAR ORUÇ

Yüksek Lisans Tezi, İşletme Enstitüsü

Tez Yöneticisi: Assoc. Prof. Dr. Kürşat Aydoğan

Şubat 1990, 65 sayfa

Vadeli döviz piyasası tüm dünyada sürekli gelişen konulardan biridir. Bu çalışmada, hem dünya, hem de Türkiye için bir yayın taraması yapılmıştır. Finansal sistemdeki değişikliklere genel bir bakış verilmiş ve bu değişimlerin sonuçlarından biri, vadeli döviz piyasaları kurumsal olarak tanıtılmıştır.

Anahtar Kelimeler: Döviz Riski, Döviz Kuru Riskine Karşı Korunma, Vadeli Anlaşma

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CHAPTER I. INTRODUCTION-DEVELOPMENTS IN THE WORLD TOWARDS FINANCIAL INTEGRATION

Starting from the beginning of 80's very important developments were observed in the world financial system. These are specifically, liberalisation, financial innovation and financial integration. They are focused on the developing countries, especially after the "debt crisis" of 1982. Even though petro-dollars were the main resource of the world financial markets in 70's because of high oil prices, the tremendous fall in both the oil prices and dollars caused that resource to drain up. In 80's Japan became the "Number 1" of the financial systems. The efforts by the EC towards the Unified Market to be achieved by 1992 is in a sense a measure against the USA and JAPAN. The success of this unification will depend on the degree of loyalty of the members to it. As a result of this, the members and candidates should adjust and develop their financial systems accordingly.

Recently, the boundaries between different countries in financial terms started to disappear. Banks can participate in the securities markets, are stepping towards universal banking and firms can manage investment funds. Liberalisation is seen as getting rid of the "financial stress". Financial stress means having negative real deposit interest rates and intervening to the credit mechanism of

the banks by means of allocation. Liberalisation brings the free flow of capital, the free participation of the domestic financial sectors outside the country and of the foreign financial sectors in the country, and finally free direct and portfolio foreign investment.

The volatility in the exchange rates of floating rate currencies results in "exchange risk" and in order to protect from it many instruments are developed, starting a period of financial innovation.

To protect from the exchange risk, the instruments used are forward and futures contracts, FX options and swaps, and finally, transactions where the rates are pegged to currency baskets like ECU and SDR.

Different expectations of interest rates in the future cause formation of a market such that some will want to invest and some to give credit. As a result, there should be enough fixed and floating rate instruments to satisfy the need of the members.

When the conditions change, one should be able to change his position from being an investor to a creditor (or vice versa) without a big spread. For this purpose, various swap and option techniques are introduced.

In order to protect from the risk of a fall in stock prices, an investor who thinks the stock prices will fall can either sell his stocks or buy a put option. Similarly, one who thinks the stock prices will rise either buys the stocks or buys a call option. This results in the formation

of an option market.

In addition to those, everyone has a different maturity choice and to meet the demand, there should be many instruments with different yields, maturities and denominations. In order to diversify risk, portfolio of securities are formed. Especially in Turkey, risk diversification is quite useful because of the high level of return and parallel to that, high level of risk. Use of the portfolios will develop more if the controls on capital movements and fund transfers are further released.

Currently, there is a continuous increase in information flow and processing as well as dealing and settlement networks. It is possible to transact among different financial centres any time during the day. The liberalisation and deregulation of financial centres form the basis of financial integration. Main results of it are securitization, increase in risk exposure of the banks, demand for foreign currency of the residents and increasing dependency among the policies of different countries. Securitization is a very new concept worth mentioning. It means the ability of firms to get funds directly by issuing money and capital market instruments instead of using intermediaries like banks.

In this study, all of the above will be discussed and the outline is organised as follows. Chapter 1 consists of introduction and the developments in the world towards financial integration whereas Chapter 2 gives the need for forward contracts. In addition, Chapter 3 introduces the

arrangements of forward markets in both the industrial and developing countries. Chapter 4 is about the Turkish economy in the past and today, introducing also the forward market whereas the conclusion and discussion takes place in Chapter 5.

There are some new terminology which has to be defined in the beginning, to facilitate the work of the reader.

A "forward rate" is the rate quoted today for delivery at a fixed future date of a specified amount of one currency against another.

A "forward contract" is the contract between a bank and a customer (which could be another bank) that calls for delivery, at a fixed future date, of a specified amount of one currency against another; the exchange rate is fixed at the time the contract is entered into.

"Exchange risk" is the variability of a firm's value that is due to uncertain exchange rate changes.

To "hedge" is to enter into a forward contract in order to protect the home currency value of foreign currency denominated assets or liabilities (Shapiro, 1989).

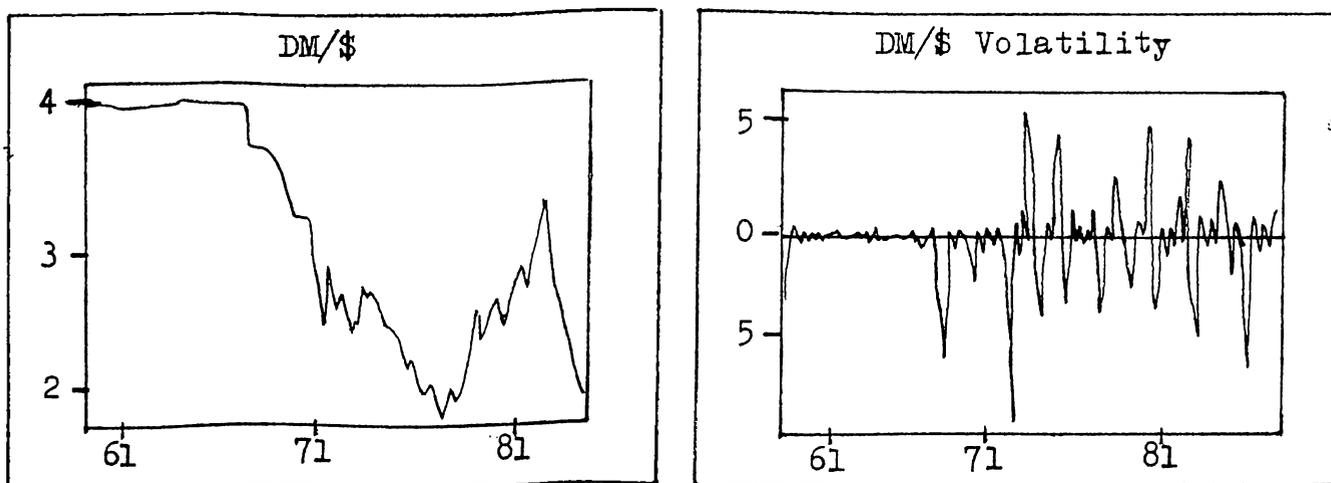
CHAPTER II. NEED FOR FORWARD CONTRACTS

2.1. ENVIRONMENTAL EFFECTS

The above mentioned structural changes in the financial system resulted in fluctuations in the economic environment on a scale and with a duration which has rarely been seen before. There has been exceptional volatility in many of the prices that are key to the operation of a successful corporation.

Since the breakdown of the Bretton Woods system, exchange rates have fluctuated hugely, as is indicated by Figure 1 which shows in the upper part the DM/\$ exchange rate and in the lower part the volatility in the same exchange rate.

Figure 1



Source: Euromoney, 1988

Interest rates, too, have shown large fluctuations as governments have taken on board the Monetarist/Keynesian

debate and as the relative importance of anti-inflationary policies has changed. Figure 2, showing the 3 month Eurodollar rate, illustrates this. Commodity price fluctuations have been similarly large as indicated by Figure 3, showing oil prices. Stock markets have also been exceptionally volatile (Figure 4). This volatility is adding greatly to the risks faced by corporations, by individuals and by whole national governments.

Figure 2

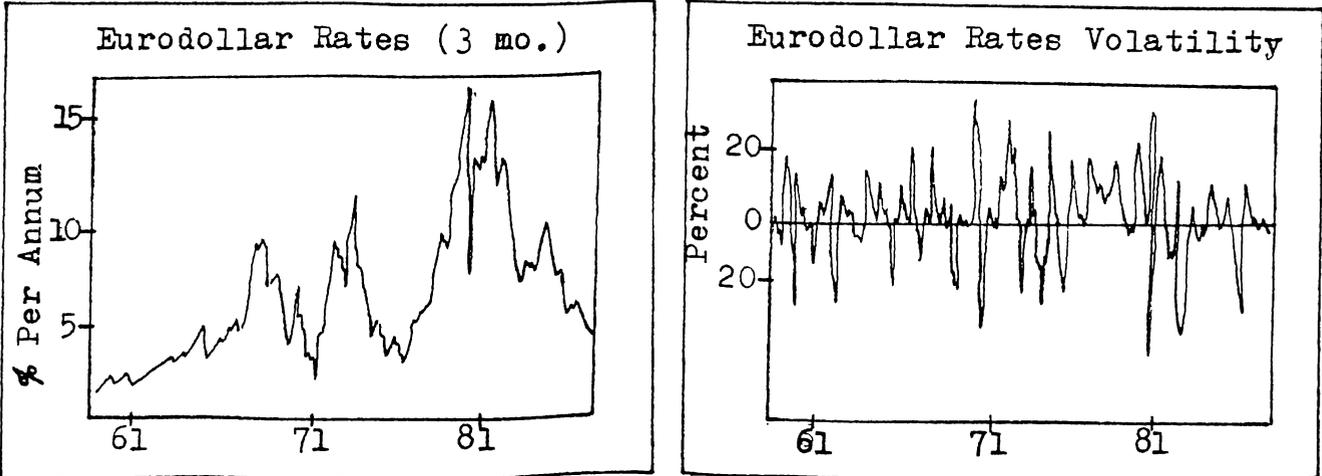
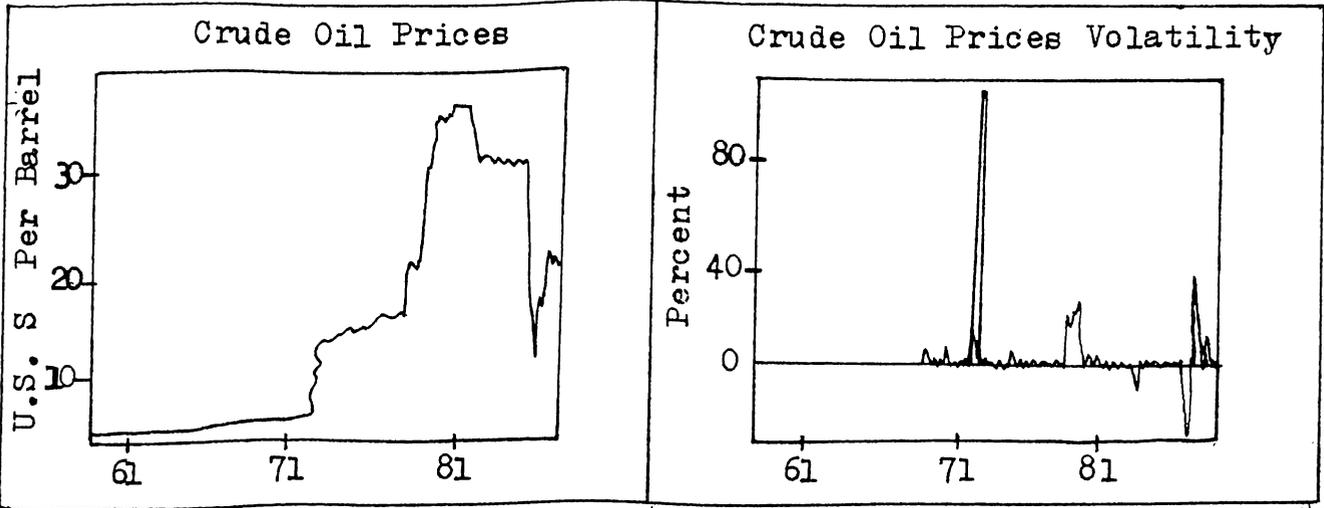


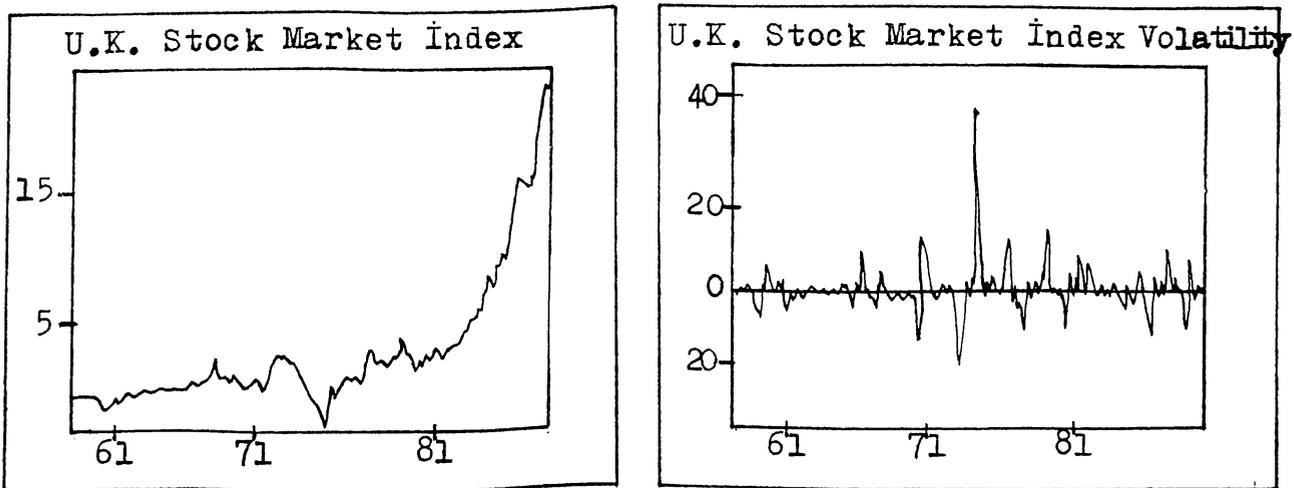
Figure 3



Source: Euromoney, 1988

Many entities have found that these fluctuations can lead to severe cash flow difficulties and, in some cases, even to bankruptcy or hostile takeovers. Indeed there are many examples of corporations at the leading edge of their industry in terms of technology, marketing or core business organization that have been pushed out of business as a direct result of exchange rate, interest rate or commodity price changes.

Figure 4



Source: Euromoney, 1988

Individuals, too, have seen their situations transformed by stock market fluctuations and swings in interest rates. Think of all the countries in the world which have had their development plans brought to ruin by changes in dollar interest rates, exchange rate movements or by swings in commodity prices.

These dangers have created the demand for instruments to manage these previously unimportant risks.

2.2. RISK IDENTIFICATION

"Environmental risk" is the risk that a firm's performance will be affected by unanticipated changes outside the firm's control. "Core business risks" are that most firms must take, resulting from decisions on production technology, the labour force, and capital input. They are the risks that most firms know how to manage, desire to manage and believe will determine their profitability.

However, profitability depends not only on how well a firm manages its core business risk but also on volatility in the economic environment; volatility which can put the firm out of business, negatively affecting even the most technologically competitive firm in the industry.

Depending upon its core business, the firm may be exposed to several different variables in the economic environment in which it operates. Price changes may result from a monetary policy shift in Bonn or new government regulations in Tokyo. These changes, which management can neither anticipate nor control, constitute the environmental risks. They result from the core business risk but must be managed separately. However, before managing they have to be identified.

Consider the case of a relatively uncomplicated US manufacturing company buying raw materials, processing them into its finished product and selling the product in its overseas market as well as in its home market. This company faces many different exposures.

It is exposed to movements in the prices of its raw

materials including those resulting from a change in the international exchange price of the US\$, the currencies in which those prices are usually expressed.

It is exposed to movements in the international exchange price of its own home currency. A rise in its home currency will reduce its competitiveness in overseas markets, while at the same time making its home market more attractive to its competitors abroad.

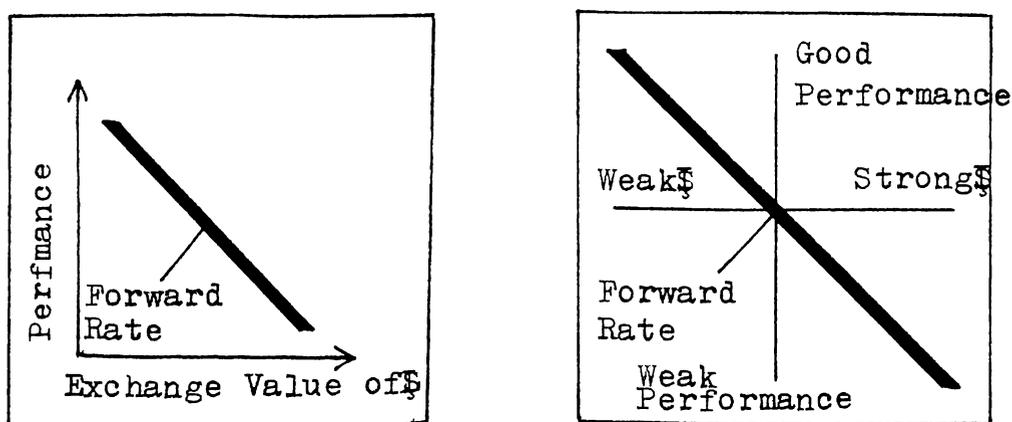
The company is also exposed to movements in many overseas currencies through their impacts on its overseas competitors.

In addition, it may be exposed to changes in domestic interest rates which will change the cash flows on its loans and which may also change its sales revenues if the customers for its products are also influenced by interest rate changes. Overseas interest rates will also influence the company through their impact on overseas competitors.

Each of these influences can be summarised pictorially in the form of a "risk profile". To give some examples, Figure 5 shows the impact of the dollar. The left part of the figure shows that the stronger the exchange rate of the US\$, the worse the performance of the company will be. The right part of the figure centres the risk profile on the forward rate and shows the fluctuations above the forward rate. That will worsen the performance while fluctuations below the forward rate will improve the performance. The "forward rate" is the rate quoted today for delivery at a

fixed future date of a specified amount of one currency against dollar (for this example) payment. Transactions for settlement over two days ahead are "forward transactions" and for settlement no more than two business days after a deal is contracted are "spot transactions". The forward rate is calculated as the discount or premium that is added to or subtracted from the spot rate. The discount or premium is the interest rate differential between the foreign currency rate and dollar rate. (For detail, refer to Grabbe, 1988).

Figure 5



Source: Euromoney, 1988

Figure 6 shows the impact of fluctuations in Eurodollar interest rates on performance, while Figure 7 shows the impact of fluctuations in the price of oil.

The risk profile measures and identifies financial risk. The steepness of the slope of it indicates the amount of exposure a firm has to a change in the financial environment in which it operates. An adverse change in the environment (shown by a rightward movement along the horizontal axis) leads to a corresponding deterioration in

performance (shown by a downward move along the vertical axis). In the past, fluctuations were confined to a narrow range; now they have a truly huge range.

Figure 6

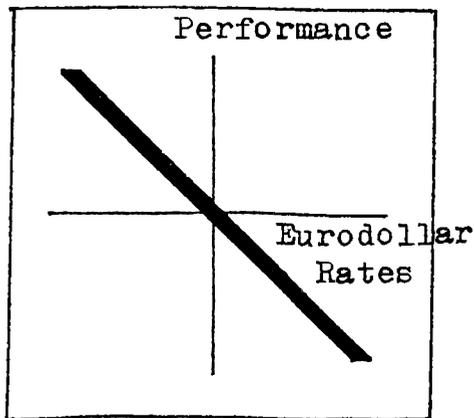
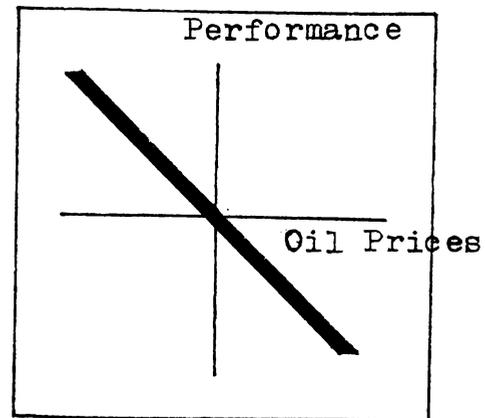


Figure 7



Source: Euromoney, 1988

To cope with this, companies first aim to identify their exposures or to draw an exposure profile for each of the factors in the environment which influences their performance. Next, they pay particular attention to those which appear particularly dangerous.

Danger might arise in two ways. The risk exposure profile may be especially steep, thus showing that even small changes in the environment have a large impact on performance. On the other hand, the range of possible fluctuations in the environment may be so wide that, even if the curve is relatively flat, the environment can still have a large impact on performance.

Finally, having identified the dangers, companies then seek ways of manipulating their exposure profiles so that they have a more satisfactory shape. What the firm wants to do is to manage its environmental risks and get on with the

business it knows best; the business of manufacturing its products.

The development of options and swaps, together with the growth of forward and futures markets, provides the instruments for managing a firm's strategic risk.

Using these four basic instruments, banks can put together hedging instruments that exactly match the requirements of the individual clients. In the text, only forward contracts are mentioned, for futures, options or swaps refer to Shapiro (1989).

2.3. EMERGENCE OF FORWARD CONTRACTS

For our manufacturer, faced with an exposure to the dollar, an obvious form of protection is the forward contract. The firm would agree today to buy the currency it needed at a pre-arranged price (the forward rate) for delivery on the pre-arranged (expiration) date. As indicated in Figure 8, the stronger the dollar is on the pre-arranged date, the greater the value of the contract to buy dollars at the pre-arranged fixed price is.

Thus, the combination of the underlying exposures which come from the firm's core business and its foreign exchange contract is unaffected by exchange rate movements because, as the stronger dollar reduces the profits from importing, so the greater value of the forward contract offsets the reduction in profits. The firm's exposure profile has been changed into a horizontal line, indicating the removal of

the exposure, as shown in Figure 9. A stable combination whatever the exchange rate becomes means the firm hedged, that is, entered into a forward contract to protect the home currency value of its foreign currency denominated assets (Euromoney, Sept., 1988). For detail on forward contracts, refer to Grabbe (1988).

Figure 8

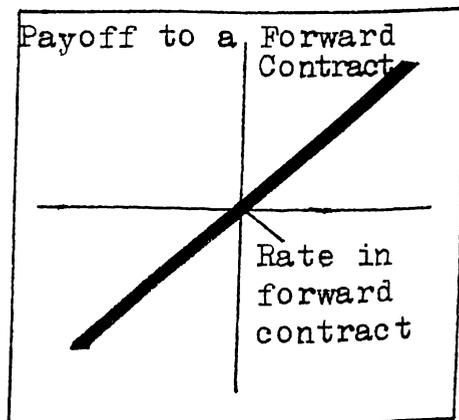
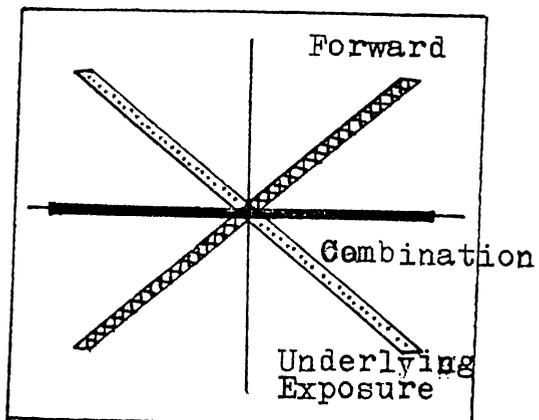


Figure 9



Source: Euromoney, 1988

Besides forward contracts, there are other instruments for hedging in many of the developed markets some of which being futures, options, options on foreign currency futures and future style options.

2.4. FUTURES CONTRACTS

A "futures contract" is an obligation incurred pursuant to the rules of a futures exchange that results in daily cash flows that occur with changes in the futures price. If held until expiration, the futures contract may involve accepting (if long) or delivering (if short) the asset on which the futures price is based. It represents a pure bet

on the direction of price (exchange rate) movement of the underlying currency. So, the futures price is not a monetary amount paid to anyone but the variable about which one is betting. If one goes long (will receive) some amount of foreign currency, he goes short a futures contract which means that he bets the futures price will go down. If it does, he receives the difference between the previous day's price and today's. This is called as marking to market. If the futures price goes up, he instead delivers the difference to the opposite party. If one goes short (will pay) some amount of foreign currency, he goes long a futures contract which means that he bets the futures price will go up. If it does, he receives the difference between the previous day's price and today's. If the futures price goes down, he delivers the difference to the opposite party.

Therefore, it is obvious that the futures bet must be chosen in such a way that whenever the underlying asset loses value, the futures bet generates a positive cash flow (or vice versa). Assuming that the amount of foreign currency involved in the futures bet exactly matches the amount of foreign currency in the underlying position, a perfect hedge requires that the futures price move one-for-one with the spot or cash price of the underlying currency. When one hedges with futures, there is always the risk that the movement in the spot and futures prices will not be one-for-one. This is referred to as basis risk. Hedging with futures will never eliminate exchange risk entirely. There will always be basis risk. However, it is normally much

smaller than would be in the open position without the futures bet.

Buyers or sellers of futures contracts place orders through brokers or exchange members. In order to prevent default, the brokerage firm requires some amount to be deposited with it as a security bond. The brokerage firm will in turn post margin with a clearing house, which will then guarantee both sides of the futures contract against default by the other party. FX futures contracts are traded at organized exchanges, for standardized currency amounts, terminate at standardized times (last trade dates), and have minimum allowable price moves between trades.

The process of actually turning over a foreign currency bank deposit in return for a domestic currency deposit is referred to as delivery. Trading in a contract ends two business days prior to the delivery day. If a futures bet is still in effect at the end of trading on the last trade date, then the long side of the FX futures contract has acquired the obligation to pay domestic currency for the face amount of foreign currency involved in the contract, at an exchange rate given by the last trading day's settlement price. The short side has the obligation to deliver the amount of foreign currency specified in the contract. The transfer of domestic currency for foreign currency between the long and short positions then takes place two days later on the delivery date, according to procedures set by the exchange. For more detail on futures contracts and its

differences from the forward contracts refer to Grabbe (1988).

2.5. OPTIONS

An option is an exchange traded contract giving the purchaser the right, but not the obligation to buy (call option) or to sell (put option) an asset at a stated price (strike or exercise price) on a stated date (European option) or at any time before a stated date (American option). Any nonexchange traded contract with similar economic characteristics to an exchange traded option. One who buys an option gives a premium for it. As a result, FX call options on spot can be used as insurance to establish a ceiling price on the domestic currency cost of foreign exchange. This ceiling price is approximately equal to the exercise price of call plus the call premium. Similarly, foreign currency put options on spot can be used as insurance to establish a floor price on the currency value of foreign exchange. This ceiling price is approximately equal to exercise price of put less the put premium.

An option that would be preferable to exercise at the current exchange rate is said to be in the money. Conversely, an out of the money option is one that would not be preferable to exercise at the current exchange rate.

2.6. EVALUATION OF FORWARD AND FUTURES CONTRACTS AND OPTIONS

There are many differences between these three in terms of procedures, which can be found in detail in Shapiro

(1989). However, the important point in the scope of this work is the use occasions.

In case of futures, as opposed to forward contracts, one faces daily cash flows, either receives or pays, because of marking to market. There is an opportunity cost since one foregoes interest on those cash flows in case of forward contracts. When the interest rates are very volatile, opportunity cost increases. This in turn may cause a difference between the forward and futures contracts prices. However, it is not possible to predict the difference in advance, else arbitrage would take place.

Taking as an example a trader who goes long some amount of foreign currency, with rapidly rising exchange rates, one would benefit most from hedging with a long put position as opposed to a futures contract. Conversely, with rapidly falling exchange rates, one would benefit most from hedging with a futures contract.

The general rules to follow when choosing between foreign currency options and forward contracts for hedging purposes are as follows.

When the quantity of a foreign currency cash outflow (inflow) is known, buy (sell) the currency forward; when the quantity is unknown, buy a call (put) option on the currency.

When the quantity of a foreign currency cash flow is partially known and partially uncertain, use a forward contract to hedge the known portion and an option to hedge

the maximum value of the uncertain remainder.(Shapiro, 1989)

2.7. POLICIES FOR DEVELOPING FORWARD MARKETS

Systems for forward cover against exchange rate risk exist in either the official or the commercial sectors in most of the members of IMF. However, the variations in arrangements cause differences for economic efficiency and macroeconomic management. Essentially, there are three types of forward exchange systems: market determined (possibility of official intervention), market approximating (official intervention to set forward rates that stimulate free market conditions), and official cover and exchange rate guarantees at fixed nonmarket rates.

Most of the industrial countries have market determined forward exchange rate systems and only a few of them have access limits (to forward markets) to certain transactors or transactions.

However in developing countries, only a few have market determined forward exchange rate systems. These accompany either floating spot exchange rate systems or relatively well developed financial systems. Also, market approximating forward systems are relatively rare. On the other hand, exchange cover arrangements with officially set rates are numerous.

Even though there are enough facilities for hedging in industrial countries, adjustment of uncertainty over exchange market stability is more difficult for small traders when hedging opportunities are limited, and for

small trading or developing countries when the geographical distribution of trade cannot be easily diversified. While benefits of forward exchange markets in offsetting exchange risk are widely understood, their developments are quite limited. Particularly, in developing countries the lack of depth of financial systems (exchange and credit markets) and the consequent potential volatility of quotations, as well as the greater sensitivity of forward than spot markets to exchange controls (since they carry the added risk that foreign exchange may not be available to complete a transaction on maturity) constitute those limitations.

CHAPTER III. ARRANGEMENTS OF FORWARD MARKETS

3.1. ARRANGEMENTS IN INDUSTRIAL COUNTRIES

With the improvements in financial techniques in the latter half of the 19. century in Europe, forward exchange markets emerged in industrial countries.

Since that time, (if the authorities do not directly suppress the markets) official or commercial forward exchange trading has taken place whenever exchange rates fluctuated or were subject to significant uncertainty.

It is known by various capital asset pricing theories that the required return on any transaction is positively correlated with the level of risk. Similarly, a reduction in exchange risk reduces the profit margins required to conduct foreign trade, which in turn lowers the cost of imports and exports. A forward exchange market causes that reduction in risk to the extent that, importers' demand for and exporters' supply of foreign currency are matched in the market at a given exchange rate.

Covering exchange risks related to capital account rather than current account transactions has become a more important function of the forward exchange markets since debtors cover the cash flow of debt service payments and limit their overall liability position in terms of domestic currency. Forward exchange markets improve the access of residents to foreign financing as they encourage potential

borrowers and lenders to engage in foreign currency contracts.

Forward exchange markets also play an important role in foreign exchange exposure management of corporations operating internationally (Antl, 1980).

From a private investor's point of view, forward contracts expand the choice of instruments for portfolio investment and improve their risk/return structure of asset holdings and welfare.

On a macroeconomic level, forward exchange rates are seen as allowing interest rates to differ between countries as the forward differential tends to compensate for current interest rate deviations. This "covered interest parity" condition expresses the equality between a forward discount on a domestic currency and the corresponding uncovered interest differential in favor of domestic currency assets (when there is no political risk or exchange controls). In forward markets, covered interest parity is maintained by arbitrage (For detail on this and other parity conditions refer to Shapiro, 1989).

Furthermore, the forward rate serves as an indicator of the future movement of the spot exchange rate. It has a catalytic effect on the efficiency of other components of the financial systems since the frictionless functioning of the forward exchange market depends on the existence of a well functioning spot exchange and short term financial markets, and requires freedom of cross border capital

movements.

As a result of all these positive effects of forward markets on trade and capital transactions, industrial countries have generally kept their forward markets functioning with a minimum of regulation. When such markets have not existed, forward cover facilities have been made available by the authorities (usually the central bank). However, these have been problematic as the exchange risk has often been borne by the central bank, resulting in heavy budgetary losses. Main features of forward transactions in industrial countries are discussed below. They are summarized in Table 1.

TABLE 1: Industrial Countries: Main Features Of Regulations

Affecting Forward Exchange Markets, December 31, 1986

	Transactions Covered	Access Restrictions	Underlying Transaction Required	Official Maturity Limit	Approval Requirements by Type of Transaction	Restriction by Currency	Policy of Official Intervention	Direct Regulation of Forward Rate
Australia	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	No	No	No	No
Austria	Commercial	Yes	Yes	18 months	No	No	No	No
	Financial	Yes	Yes	18 months	Yes	No	No	No
Belgium/ Luxemburg	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	Yes	No	No	No
Canada	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	No	No	No	No
Denmark	Commercial	Yes	Yes	36 months	No	No	No	No
	Financial	Yes	Yes	36 months	Yes	No	No	No
Finland	Commercial	Yes	Yes	No	No	No	Yes	No
	Financial	Yes	Yes	No	Yes	No	Yes	No

France	Commercial	Yes	Yes	No	No	No	No	No
	Financial	Yes	Yes	No	Yes	No	No	No
Germany, Fed.	Commercial	No	No	No	No	No	....	No
	Financial	No	No	No	No	No	....	No
Iceland	No forward market	-	-	-	-	-	-	-
Ireland	Commercial	Yes	Yes	12 months	No	No	Yes	No
	Financial	Yes	Yes	12 months	Yes	No	Yes	No
Italy	Commercial	Yes	Yes	18 months	No	No	Yes	No
	Financial	Yes	Yes	18 months	Yes	No	Yes	No
Japan	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	No	No	No	No
Netherlands	Commercial	No	No	No	No	No	....	No
	Financial	No	No	No	No	No	....	No
New Zealand	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	No	No	No	No
Norway	Commercial	Yes	Yes	No	No	No	Yes	No
	Financial	Yes	Yes	No	Yes	No	Yes	No
Spain	Commercial	Yes	Yes	12 months	No	Yes	....	No
	Financial	Yes	Yes	12 months	Yes	Yes	....	No
Sweden	Commercial	Yes	Yes	No	No	No	....	No
	Financial	Yes	Yes	No	Yes	No	....	No
Switzerland	Commercial	No	No	No	No	No	....	No
	Financial	No	No	No	No	No	....	No
United Kingdom	Commercial	No	No	No	No	No	....	No
	Financial	No	No	No	No	No	....	No
United States	Commercial	No	No	No	No	No	No	No
	Financial	No	No	No	No	No	No	No

Sources: IMF, "Annual Report on Exchange Arrangements and Exchange Restrictions", (Washington: IMF, 1987); and national authorities

Note: "Yes" indicates it is a practice under the exchange system, "No" indicates it is not, "...." indicates that the information is not available; and "-" indicates that the information is not applicable.

3.1.1. COVERAGE OF TRANSACTIONS

Coverage is provided for three types of transactions: Commercial (and sometimes scheduled debt service payments),

financial and speculative nature.

Commercial transactions are ones for export and import (trade) purposes. In other words, the foreign currency earned or paid on exports and imports are hedged.

Financial transactions are ones for interest arbitrage purposes. These are aimed at maximizing yields on financial investments while avoiding exchange risk and covering spot exchange transactions.

The third type enables transactors to take open positions of a purely speculative nature. It differs from the above two in that, there need not exist a commercial or financial transaction.

3.1.2 MATURITIES

In a fully developed forward market, the maturity structure should reflect the maturities of other instruments in both the domestic and other major financial markets, operating through arbitrage and the interest parity condition.

Longer maturities are transacted less frequently. Some countries place official limitations on maturities whereas some have maturities up to ten years.

Transactions with longer maturities in the major currencies, or transactions involving other currencies must be negotiated (such contracts are quite exceptional and expensive even in markets with no official restrictions on maturities).

For most currencies, quotations are published for up to one year, with maturities up to six months being the most heavily traded. Premiums increase rapidly for maturities over five years. Pricing in the long term forward market is indeterminate. The techniques used for pricing in the short term markets are based on arbitrage between the Eurocurrencies and foreign exchange markets, and are not fully applicable because there is more than one way of calculating arbitrage in multi period situations (Antl,1982).

3.1.3.LIMITATIONS ON TRANSACTORS, CURRENCIES AND RATES

Entry limitations for transactors generally distinguish among banks, nonbank residents and nonresidents.

Cover for commercial transactions is not restricted to interbank transactions in any country. However, cover for financial transactions is limited to transactions between resident banks in some countries. On the other hand, currency coverage of forward transactions is generally restricted to the exchange of domestic for convertible foreign currencies for two reasons: First of all, where currencies are subject to restriction, future delivery becomes uncertain as it may be blocked by the authorities . Secondly, the existence of restrictions on flows of the foreign currency may make it difficult to ascertain the appropriate forward discount or premium since the interest parity condition will no longer hold with any precision.

Currently, no industrial country sets the forward rate

directly, although rates are subject to some intervention to affect market demand and supply.

In the regulated markets, the most common restriction on entry is the need for a commercial transaction. In the past management of forward rate was always accompanied by a restriction to commercial transactions. Management of the rate was seen as dampening speculative influences on the market from abroad. This is also consistent with central bank participation in the forward market by which it assumes some of the administrative or other costs, to some extent providing benefit to the real sector by the cover.

3.1.4 EFFECTS OF FINANCIAL SECTOR REGULATION

Exchange controls constitute an important barrier to the development of forward markets by distorting the demand for and supply of assets in it. Since transactors can not substitute assets on a spot basis in response to exchange rate movements, this dries up two-way transactions resulting in a disequilibrium in the forward market.

Exchange controls on current or capital transactions parallel regulations on forward market operations and arrangements for determining exchange rates (Table 2)

The efficiency of unregulated forward market is affected by also the nature of domestic money markets because of the influence of interest rate differentials on the equilibrium forward rate. Independence of domestic money markets in the process of interest rate determination is

TABLE 2: Industrial Countries: Main Features Of Exchange Systems,
December 31, 1986

	Spot Exchange Arrangements Other Than Independent Floating or EMS	Prescription of Currency	Bilateral Payment Arrangements	Payment Restrictions		Cost-Related Import Restrictions		Surrender Requirement for Export Proceeds	Forward Exchange Markets Restrictive or Available
				Current	Capital	Import Surcharges	Import Deposit		
Australia	No	No	No	No	No	No	No	No	No
Austria	Yes	No	No	No	Yes	No	No	No	Yes
Belgium	No	Yes	No	No	No	No	No	Yes	No
Canada	No	No	No	No	No	No	No	No	No
Denmark	No	No	No	No	Yes	No	No	Yes	Yes
Finland	Yes	Yes	Yes	No	Yes	No	No	No	Yes
France	No	No	No	No	Yes	No	No	Yes	Yes
Germany	No	No	No	No	No	No	No	No	No
Iceland	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes
Ireland	No	No	No	No	Yes	No	No	Yes	Yes
Italy	No	No	No	No	Yes	No	No	Yes	Yes
Japan	No	No	No	No	No	No	No	No	No
Netherlands	No	No	No	No	No	No	No	No	No
New Zealand	No	No	No	No	No	No	No	No	No
Norway	Yes	No	No	No	Yes	No	No	Yes	Yes
Spain	Yes	No	No	No	Yes	No	No	Yes	Yes
Sweden	Yes	No	No	No	Yes	No	No	No	Yes
Switzerland	No	No	No	No	No	No	No	No	No
United Kingdom	No	No	No	No	No	No	No	No	No

United No No No No No No No No
States

Sources: IMF, "Annual Report on Exchange Arrangements and Exchange Restrictions", (Washington: IMF, 1987); and national authorities.

ensured by the existence of arbitrageurs. If there is not enough interest rate flexibility in the domestic market or in a major competing money market abroad, forward premiums and discounts may not be realistic indicators of future spot exchange movements and the market becomes inefficient (just as in the presence of exchange restrictions).

3.1.5 CONCLUSION

All industrial countries but Iceland now have forward exchange markets in which the rate is determined by the market. Forward markets that have been liberalised in several countries in the 1980s have matured quickly. However, restrictions on various aspects of forward transactions remain in some countries - the most common of which are limitations to commercial or "underlying" transactions and corresponding forward maturities. There is a close correspondence between these remaining restrictions on forward transactions and those on spot capital transactions. In addition to liberalisation, developments in the 1980s have also been marked by very rapid innovation - particularly in the currency options market, where the tailoring to particular risk situations and customer

preferences has brought about a wide range of instruments. Despite these rapid changes, the traditional FOREX products -spot and forward contracts- remain the main elements of the market.

3.2 ARRANGEMENTS IN DEVELOPING COUNTRIES

In a growing number of developing countries, forward cover is provided to the private sector by commercial banks. These have been introduced in association with floating spot exchange systems or with relatively advanced financial systems or relatively free exchange systems (Table 3).

TABLE 3: Summary Features of Forward Exchange Systems In Selected Developing Countries, December 31, 1986

	Cover by Private Sector		Cover Provided by Official Agencies To			Forward Cover Provided by or Through Banks
	Unregulated Rates	Regulated Rates	Banks	Traders	Debtors	
Argentina	Yes	No	Yes	Yes	Yes	Yes
Bangladesh	No	Yes	Yes	No	Yes	Yes
Brazil	Yes	No	No	No	No	No
Chile	Yes	No	No	No	No	No
China	No	Yes	No	No	No	Yes
Costa Rica	No	No	No	Yes	Yes	No
Egypt	No	No	No	Yes	No	No
Hungary	No	No	No	Yes	No	No
India	No	Yes	Yes	Yes	No	Yes
Indonesia	Yes	No	Yes	No	No	Yes

Israel	No	No	No	Yes	No	No
Jamaica	Yes	No	No	No	No	No
Jordan	Yes	No	No	Yes	No	Yes
Kenya	No	Yes	Yes	No	No	Yes
Korea	Yes	No	Yes	No	No	Yes
Malaysia	Yes	No	Yes	No	No	Yes
Malta	No	Yes	Yes	Yes	No	Yes
Mauritius	No	No	No	Yes	Yes	No
Mexico	No	No	No	No	Yes	No
Morocco	No	No	Yes	No	No	No
Nigeria	Yes	No	No	No	No	Yes
Pakistan	No	Yes	Yes	No	Yes	Yes
Philippine	Yes	No	Yes	No	Yes	No
Singapore	Yes	No	No	No	No	Yes
South Africa	Yes	No	Yes	No	No	Yes
Sri Lanka	Yes	No	Yes	No	No	Yes
Thailand	Yes	No	No	No	No	No
Turkey	No	No	No	No	Yes	No
United Arab Emirates	Yes	No	Yes	No	No	No
Uruguay	Yes	No	No	No	Yes	Yes
Venezuela	No	No	No	No	Yes	No
Zaire	Yes	No	No	No	Yes	Yes
Zimbabwe	No	No	No	Yes	No	Yes

Sources: IMF, "Annual Report on Exchange Arrangements and Exchange Restrictions", (Washington, IMF, 1987) and national authorities.

Forward cover is provided either by the commercial banking system on officially regulated terms (and supported by official forward cover facilities provided to the banks) or directly to the private/public sector enterprises by the central bank or another official institution. In the latter, access to the forward cover is restricted to trade or to rescheduled liabilities to foreign creditors. Sometimes official forward cover is provided at terms that are designed not to be loss making or that are intended to stimulate the terms that a free market would offer. Examples are schemes for exchange cover of private sector debt service payments and cases where official cover is provided at forward premiums (which approximate international interest differentials so that covered interest parity holds as in free markets without exchange/credit controls, or political risk). However, most of the time, official forward premiums have been fixed for long periods without reference to market conditions or have resulted in subsidies from government budgets.

Even if forward cover is provided at estimated "commercial" terms, a central bank which sells forward foreign exchange will make losses if the domestic currency depreciates (over the maturity) by more than the implicit forward discount in the contract (if the central bank does not close its position by simultaneously buying spot or forward foreign exchange). Central banks do not close their positions because of either the absence of a developed

domestic market to cover risks, or reserve constraints and the desire to avoid consequent pressure on spot exchange rate. A dominance of official forward sales over purchases of foreign exchange generally results in losses.

The institution of forward arrangements have some costs and benefits. The cost is the initial resource costs on the central bank.

The first benefit is the increase in efficiency and reduction of markups on imported goods (resulting from lower exposure to exchange risk). The second is the provision of a stable environment to investors through the protection against short term exchange risks; resulting in an improvement of investment climate. A third benefit is that forward markets reduce the need of traders for working balances in foreign currency, and thus improve the overall availability of foreign exchange. A fourth benefit is that the arrangements encourage importers to gain access to foreign sources of financing, thus providing further support to the balance of payments.

3.2.1. EXCHANGE RATE GUARANTEES

Exchange rate guarantee is generally provided, directly or indirectly with official resources. Sometimes a fee is taken. They are sometimes obtainable directly from the central bank and in others, administered at a spread, by the commercial banking system.

Eligible transactions with guarantees involve the repayment of suppliers' credits for imports and provision of

financing to domestic exporters. Sometimes, guarantees are also applied by the government to debt service payments.

Forward cover is not normally requested for export receipts since in many countries, domestic currency depreciates by more than the available managed forward premium (so that exporters are content to take the exchange risk).

3.2.1.1. MARKET APPROXIMATING FORWARD EXCHANGE RATES

In several developing countries attempts are made to approximate the workings of a market system of determining forward exchange rates, while retaining official regulation of the forward premium or discount. Eligibility for participation is restricted to servicing debt outstanding at the time of a rescheduling, and involves relatively long periods of cover for the obligations. In fact, longer forward maturities than are usually available even in the forward markets of the industrial countries.

The covered interest parity condition noted earlier and linkages through projected inflation rates to interest rates are utilized to determine the calculated forward premium. In forward markets, covered interest parity is maintained by riskless arbitrage, apart from a margin of indeterminacy resulting from transactions costs.

A basic difficulty with this approach is that the covered interest parity condition applies only when both domestic and foreign financial markets are free from

controls. The interpretation of interest rates in terms of the equilibrium condition is invalid when these assumptions do not hold, as is clear from major deviations from covered interest rate parity at times in industrial countries with less than perfectly competitive exchange systems. The calculated premiums will also tend to be biased downward in many developing countries that have constrained interest rates and apply credit controls. The situation may be even worse as the low real interest rates, at the outset of the cover period tend to feed into higher inflation, resulting ultimately in even lower interest rates, and larger deviations of actual spot exchange rate movements from initial expectations.

Other applications of the covered interest parity condition by developing countries offer less protection to the budget. Where the premium is set simply as the difference between the local and foreign interest rates, artificially low domestic rates have implied substantial losses. In such circumstances, "shadow interest rates" should be used to calculate forward premiums via the interest parity condition. A shadow interest rate may be calculated from the expected rate of inflation plus premium for time preference, risk, and other transactions costs. Given that the latter costs may be roughly equal between countries, application of covered interest parity condition in this form comes close to the use of inflation differentials or purchasing power parity (PPP) to determine the forward premiums (Shapiro, 1989). Given the available

evidence that PPP is broadly applicable in the longer term, use of the covered parity condition should result in minimizing losses in the provision of forward cover either by official or by officially supported agencies. However, losses may not be avoided and may be considerable in the short run. The best approach is not for the central bank to assume or manage risk itself, but to encourage the development of a forward market in the private sector.

3.2.2. CROSS HEDGING

Cross hedging may be used where there is no domestic forward exchange market. It involves the use of foreign forward market in an asset whose price has large covariance with the exchange rate of the domestic currency. The most obvious example would be the use of the forward market in the currency to which domestic currency is pegged.

Although cross hedging may be valuable for closely integrated smaller economies, it may be of less value for more isolated economies. Even in closely integrated economies, the risk of divergent monetary policies causing a need to adjust the peg may be significant. The timing of devaluations is politically determined in most instances and may be difficult to predict. In addition, cross hedging may have no application at all for countries with relatively diversified relationships. Nevertheless, as a technique it is of more value than the provision of exchange rate guarantees with low or zero fees, and, unlike market

approximating techniques, it need not involve the central bank in risk, providing that the latter does not assume responsibility for variations between the hedged currency or commodity and the domestic currency.

3.2.3. MARKET DETERMINED SYSTEMS

Forward markets in which rates are free to be determined by supply and demand and the range of external transactions is unregulated exist in some countries, but in others the availability of forward cover is limited to certain underlying commercial or financial transactions, usually the former. The basic reason for such a restriction is the desire on the part of the authorities to curb speculative influences on the market. Another reason for the limitation to underlying "real" transactions is that such transactions tend to attract commercial lending. If domestic interest rates are relatively low and the exchange rate is depreciating, importers may not wish to take up otherwise attractive official and non official credits abroad. The availability of forward cover without its cost being borne by the central bank may be sufficient to facilitate such borrowing from opportune sources when financing is tight.

3.2.3.1. AUCTION MARKETS

It is possible to devise mechanisms for forward auction markets similar to those used in auction markets for spot exchange. However, forward auction markets are likely to be

more difficult to establish in practice because it may not be possible to predict the timing and supply of forward exchange to the auction accurately enough ahead of the actual transaction, it is probably necessary to have an iterative auction in which representatives of both the buyers and sellers are present at one time, so that bids could converge on an equilibrium price.

3.2.3.2 BROKERED MARKETS AT THE CENTRAL BANK

Brokering of forward transactions by the central bank involves a barter operation. The central bank does not make the market on its own books, so that it does not take an exposed position itself, but matches up transactors at the various maturities on the basis of mutually agreeable rates. Owing to the coincidence of wants, a risk premium need not be charged for such a transaction. Instead, a small charge may be asked by the central bank for the cost of undertaking the brokering role.

3.2.3.3. FUNDED MARKETS AT THE CENTRAL BANK

The role of central banks would involve setting up a small fund for the initial provision of foreign exchange at covered or qualified covered interest differential determined premiums, which would function in a similar way to the system of exchange guarantees provided by central banks. The difference would be that, under a market oriented approach, the aim would be to ensure eventual independence from the fund by adjusting the forward premium to clear the

market.

3.2.3.4. PARALLEL FORWARD MARKETS

In some countries, parallel markets that are officially unrecognised may exist both for spot and forward exchange. However, in such instances the parallel forward market exists mainly to cover risks in the parallel spot market. Risks inherent in the availability of, and the exchange rate for, official foreign exchange may be different for all of the reasons that the official and parallel rates diverge.

3.2.3.5. FORWARD EXCHANGE MARKETS IN THE PRIVATE SECTOR

The development of private forward exchange markets in the developing countries that have adopted floating spot exchange rates is at a relatively early stage. There is no such country at present that could be considered to have an organised and satisfactorily operating forward exchange market.

3.2.4. FOREIGN EXCHANGE DEPOSIT ACCOUNTS

In many developing countries, commercial banks or the central bank offer facilities for external accounts, with special exemptions from the exchange control regime. These involve either convertible foreign exchange or FX denominated deposits, without freely transferable claim on a foreign asset. Since the FX or the FX denominated deposits

may be held by residents against future liabilities abroad, they constitute one means of hedging against exchange risk.

Relative to forward market cover of exchange risk, the difficulty with FX deposits that are held on account with the commercial bank or the central bank is that in the mean time, they can not be used by the depositor. They therefore represent liquidity in excess of efficient working balances.

Foreign currency denominated accounts in a sense constitute forward hedging arrangements. Claims on foreign entities are not involved, and the major distinguishing feature of the deposits is the provision of cover against exchange risk (although there may be helpful features of the accounts, such as treatment under exchange controls).

3.2.5. CONCLUSION

Arrangements in developing countries are typically more centralized. They fall into three broad categories: market determined (a small but growing number), market approximating (in which the interest parity condition or an approximation of it is used), and (more commonly) fixed or managed rates at noncommercial or internationally subsidized terms. Active forward exchange markets have emerged mainly in those countries that have advanced financial systems or relatively free exchange systems. In those countries in which the interest parity condition has been used to approximate a market determined forward rate, varying degrees of precision and success have resulted. The major difficulty has been that, application of the covered

parity condition does not ensure that the official agencies providing the cover will not incur losses. In most developing countries, forward premiums have been set by administrative fiat, without recognition of market realities. Consequently, central bank losses from risk exposure have been extremely large in some countries.

An auction market could be devised for forward transactions, but is unlikely to be practical, because the supply of forward exchange probably may not be determined in advance sufficiently accurately. The possibility also exists of the central banks passively brokering transactions, without taking an exposed position themselves. Here again, such markets have not emerged, probably owing to the unfamiliarity of exporters and importers with such markets. It may also be result of bias in risk appraisals by exporters and importers unfamiliar with the market that would delay a coincidence of wants at specific maturities.

Parallel forward markets have emerged in a few countries. They exist mainly to cover risks in the parallel spot market, but could provide some indication of a clearing forward rate for the official market.

An alternative forward cover is the provision of foreign exchange deposit accounts, which exist in many developing countries. These accounts may either be for convertible foreign exchange or for foreign exchange denomination of deposits without a transferable claim on a foreign asset. The disadvantage with both accounts as a

hedging facility compared with the use of forward exchange contracts is that they tie up liquidity.

Questions of the exposure of commercial banks to exchange risk, beyond their ability to be involved prudently or at unrealistic regulated rates, also arise with the deposit facilities.

On the other hand, forward exchange markets operated in the private sector exist in a small number of developing countries. In these cases, the environment provided by exchange systems and domestic financial systems has been important in promoting the flexibility of the forward arrangements.

A major difficulty with many of the schemes examined above is that they have been only for provision of cover to importers and have not disseminated information on the forward cover to exporters. Any official support should be directed to both sides of the market. For this purpose, a facility could be set up at the central bank to provide cover at market clearing rates that would be established by a search procedure. The optimal starting point for the forward exchange rate would depend very much on the financial environment of the particular country. In countries with interest rates and spot exchange rates in disequilibrium, it would be necessary to proxy the covered interest parity condition with shadow pricing of interest rates and spot exchange rates. Both the rate and margin payable from the fund would be adjusted continually to attract customers to both sides of the market. However,

where there is a large spread between the official and parallel exchange rates, it would be necessary to increase the premium beyond the calculated level to reflect the risk that large exchange rate adjustments could occur.

In developing the market, it would be preferable to have the commercial banks handle transactions as much as possible, and have the central bank to withdraw both its support for, and the regulation of the rate as early as possible. Experience in the industrial countries suggests that outright forward contracts for commercial cover would be the most desirable point at which to start operations.

As the last stage of its development, the market could be extended from underlying commercial transactions to forward transactions of a purely financial character, a process that is taking place in most of the few industrial countries that have retained regulated forward systems. Such development would parallel the liberalization of remaining restrictions on international capital transactions. Benefits of these purely financial transactions, in addition to those mentioned above for commercial transactions are that, they permit stabilizing speculation and allow domestic financial institutions to retain market share in the international financial markets. Otherwise, there would be a tendency for this form of transaction, and also some of the more sophisticated money market transactions that they accommodate, to move abroad (Hacche, Quirk, Schoofs, 1988).

CHAPTER IV. CHANGES IN THE TURKISH ECONOMY

When the situation is examined in retrospect, there were two things that had to be done in the beginning of the 1980's. The first was to restore stability to an economy that had lost its stability, and to keep economic indices moving within certain boundaries. The second was to bring about structural adjustment- something that had been needed for years. After a climate of stability had been established, there was an acceleration in the achievement rate. For the structural adjustment, there were two main policies underlying. The first had been liberalisation, removal of restrictions and the adoption of a market economy.

The second had been decentralisation. All organisations within the system had to be liberalised and there had to be a move away from centralisation towards decentralisation.

When Turkey took the decision to move from a closed economy to an open one, in any case, it was obvious that this would involve direct confrontation with outside economic and political forces. For this reason, any changes that took place outside, whether big or small, forced the Turkish economy to respond. When the economy is closed, the obligation to respond is less, but when it is open, this obligation increases. This, in turn, rejuvenates the economy as a whole. However, to respond requires a potential and a capacity to react, but here the vital point is flexibility.

the Turkish economy had the potential in terms of stock but did not achieve the latter until after 1980. What it achieved after 1980 was the ability to mobilise this potential, the flexibility that enabled it to take action.

In 1992, Turkey will be confronted with a unified market with its companies, conditions of competition and rules. If Turkey does not make preparations within this time she will encounter much more difficult market conditions than what exists today.

4.1. MONEY AND CAPITAL MARKETS

The current developments in the money, capital and foreign currency markets in Turkey can be described as a "financial sector adjustment programme". There are two main factors underlying the programme: Resource creation and mobilization and its optimum allocation.

To achieve a complete restructuring, the government created a legal infrastructure in terms of money and capital markets and applied the right fiscal policies. It has encouraged the development of companies. Turkey now has a capital market and a stock exchange, a central bank which is engaged in open market operations, interbank transactions, swaps and many other things that were not done before 1980. There is also a foreign currency market which is active on a scale that has never been seen before (Canevi, 1989).

4.2. FOREIGN EXCHANGE (FX) MARKET

The outward oriented and more liberal foreign trade policy increased the amount of FX denominated transactions in Turkey. While exports, transfers of labor force and contractors abroad and income from tourism have been increasing the FX inflow, imports, debt, and debt service payments have continued to drain the FX reserves of the economy. Both kinds of transactions initially concern FX markets. However, as foreign currencies are changed into Turkish Liras (TL) and result in an increase in the amount of money in circulation, they also influence money markets. Therefore, measures were developed not only to regulate FX inflow and outflow and correct the balance of payments disequilibrium, but also to develop institutionalised money, capital and FX markets and coordinate them to maximize the gains. Steps taken can be summarized as follows.

One of the first steps was the adaptation of a more flexible and actively determined exchange rate for TL with respect to major currencies. Until 1980, TL remained overvalued with respect to major currencies such as US\$, DM etc. The delayed devaluations hampered exports because the overvalued rate made exports less competitive. Since 1981, the Turkish Central Bank (CB) has started to determine the exchange rates of major currencies daily, according to a predetermined formula, one of the determinants of which has been the rate of inflation in the prices of the domestic goods.

In order to stabilize the real parity between TL and other currencies, the nominal value of the TL has been continuously depreciated by the CB. This protects Turkish exports from the inflationary pressures of the domestic market. It also makes imports more expensive and the demand for imports is controlled better so that the foreign trade deficit has been somewhat remedied.

The increase in exports and decrease in imports was coupled with domestic inflation of prices through cost increases in goods produced in sectors that use imported inputs. Therefore, an active exchange policy has had a limited impact on the items of the balance of payments that cause currency outflows, it has yielded a positive impact on exports and other foreign currency supplying items. Also, it has helped to introduce market discipline to the economy by making monetary authorities more market conscious. Furthermore, de facto recognition of the parallel market operations rendered those operations less attractive so long as the daily exchange rates declared by the CB kept close margins with the parallel market. The active exchange rate policy implementation prevented the destructive impacts of high rated devaluations. Therefore, a shifting to an active exchange rate policy may be considered as a milestone for a more institutionalised and sensitive exchange market. However, after 1980 exchange rate practices remained under the monopoly of the CB. Only with limited margins were commercial banks allowed to operate with the officially

determined rates of foreign currencies. In 1984, Resolution # 28 was put into force. The CB authorised the commercial banks to determine their buying and selling rates within +/- 0.6 % margin around the par value. The relative mobility of capital brought with that resolution was a step towards liberalisation. Furthermore, in July, 1, 1985 the first step towards convertibility was taken: The CB abolished the margins and let the banks determine their individual rates without any limitations. However, the banks remained close to the official rates declared by the CB and avoided making variations between 1985 and 1986. Starting in the early 1986, banks gave up being FX suppliers and also, in order to service foreign liabilities made use of the parallel market. On the supply side, a decline took place because of the decline of petrodollars of oil exporting countries and resulting changes in their exchange rate policies. On the demand side, CB stopped supplying foreign currency to the market, and in order to service its debts, asked the banks to place 20% of their FX to the CB. As a result, a disequilibrium in the market took place causing new decisions to be taken on March, 14, 1986. According to that, banks could determine rates within 1% of the official rate (Ersan,1988). Since October, 30, 1986 the CB has changed its policy once more and limited the operations of the commercial banks so that banks' buying rates cannot exceed the official buying rates, and only a 0.05 % difference was tolerated between banks' selling rates. In July, 29, 1988 Resolution #30 was put into force. Banks were

allowed to participate in the determination of daily exchange rates. The commercial banks could establish their selling rates within 0.5 % for FX and 2% for banknotes of the announced official selling rate of the CB; their buying rates can be set freely. Furthermore, rates were determined freely for transactions exceeding \$50.000. Resolution #32 on August, 8, 1989 brought further deregulation to the market. The commercial banks are free to establish their own buying and selling rates in the interbank market and for transactions exceeding \$10.000.

Also, a Foreign Exchange Risk Insurance Scheme (FERIS) is designed to provide domestic borrowers with an exchange rate guarantee for approved foreign borrowing. Foreign borrowing under the scheme is on-lent in TL at a domestic interest rate determined on an annual basis. The difference between the lira cost at the time it is contracted and the lira cost of repayments is covered from resources of the scheme.

Exchange and trade controls are the responsibility of the Prime Ministry, to which the Undersecretariat of Treasury and Foreign Trade is attached. Administration of exchange controls has been delegated to the CB, which regulates all matters related to foreign exchange operations. All commercial banks have been authorized by the Undersecretariat of Treasury and Foreign Trade to engage in foreign operations on their own account, including allocating FX for imports not subject to prior permit. In

the case of imports subject to prior permit, authorized commercial banks can directly allocate FX and issue import licenses upon receiving the approved import permit from the Treasury. Export registration is carried out by trade organizations, according to instructions from the Treasury which also issues export licences but may delegate this authority to the relevant organizations. Summary Features Of Exchange and Trade Systems in Turkey is on Table 4.

TABLE 4: Summary Features Of Exchange and Trade Systems,
TURKEY, December 31, 1987

=====	
A. Exchange Arrangement	
1. Exchange rate determined on the basis of:	
(a). a peg to:	
i. the US dollar	-
ii. the pound sterling.....	-
iii. the French franc	-
iv. other currencies	-
v. a composite of currencies	-
(b). Limited flexibility with respect to:	
i. single currency	-
ii. cooperative arrangement	-
(c). More flexible arrangements:	
i. adjusted according to a set of indicators	-
ii. other managed floating	+
iii. independently floating	-
2. Separate exchange rate(s) for some or all capital transactions and/or some or all invisibles	
3. More than one rate for imports.....	
4. More than one rate for exports.....	
5. Import rate(s) different from export rate(s)	
=====	
B. Payment Arrears.....	
=====	

C. Bilateral Payment Arrangements	
1. With members.....	‡
2. With nonmembers	-

D. Payment Restrictions	
1. Restrictions on payments for current transacts	‡
2. Restrictions on payments for capital transacts	‡

E. Cost Related Import Restrictions	
1. Import surcharges	‡
2. Advance import deposits	‡

F. Surrender or Repatriation Requirement for Export Proceeds	
	‡

Sources: IMF, "Annual Report on Exchange Arrangements and Exchange Restrictions, (Washington, IMF, 1988)

Note: "‡" indicates that the specified practice is a feature of the system, "-" indicates that the specified practice is not a feature of the system.

4.2.2. EFFORTS FOR THE CONVERTIBILITY OF TL

In addition to the implementation of active exchange policies, since 1982, the convertibility of the TL has become an important subject. In order to introduce convertibility, foreign trade regulations were eased and the rate of liberation in imports reached 80%, foreign capital inflows have been further encouraged. However, because of the tendency of the foreign trade deficit to increase, import funds and commissions were placed to prevent excessive increases in imports. Additionally, upper limits were imposed on capital outflows.

Commercial banks have been authorized to keep FX deposit accounts, those accounts have become an important

determinant of money supply. Therefore, in order to control the pressure of FX deposit accounts on expansion of the money supply, legal requirements were established in 1986. Currently, 5% of the deposits in those accounts have to be transferred to the CB. After 1985, to establish the convertibility of the TL, all commercial banks were authorised to enter into FX dealings. FX position limits that tightened the FX credit volumes of banks were abolished however, because of the inflationary impacts of those transactions and speculative foreign currency accumulations in banks legal requirements of first 25%(1986) and then 20%(1988) were imposed on FX positions of banks.

The obligations imposed on the commercial banks hampered the FX accumulations coming out of the CB slowing down the foreign market practices. Measures to control FX transactions and FX reserves delayed the introduction of convertibility of TL.

In order to provide convertibility, Resolution #32 was put into force. The aim of the government in forcing this was as follows.

Convertibility was desired for the last 20 years but could not be put into action because of the balance of payments deficits and FX problems of Turkey. It was in the programme of the Motherland Party and since 1983, several steps were taken to reach that. Initially, in 1988, the exchange rates were started to be determined freely by the market, secondly, in October, 1988 the interest rates were

started to be determined freely, and finally, in March,1989 importation of gold was unrestricted. Besides, Turkish residents were free to go out and have a certain amount of foreign currency with them. In August,1989, the government decided that it was time to bring convertibility and put Res.#32 into force. The contents of it is known by everybody. The basis of it is the free flow of capital which brings dynamizm to the economy. Then, investments increase as well as exports, the economy takes a step towards integration with the foreign countries and then integrates.

The system has some advantages. First of all, since foreign currency can be held or bought freely, it relieves the burden of CB to sell foreign currency. Therefore, it prevents the increase in money supply in fighting with inflation. Furthermore, since the selling rates on foreign currency of foreign banks is less than the selling rates on TL of Turkish banks because of low cost of money, firms who finance themselves by the former will force both the buying and selling rates to fall. Its demand will increase since the citizens ask for it and banks want to hold it in their FX positions to pay interests on accounts. Then, the exchange rate of TL will come into equilibrium according to the market conditions.

There are also conflicts on these attempts that worth mentioning. It is argued that (Ersan,1989) talking about convertibility is not realistic in the current conditions. It requires existence of internal economic balance, a stable growth rate, foreign trade balance, enough foreign currency

reserves, correspondence between foreign currency payments and foreign debt service, a developed money and capital market and an effective stock exchange. These requirements are not satisfied in Turkey. Besides, such a high inflation rate proved to be damaging convertibility in Chile and other Latin American countries.

In addition, the convertibility of the lira depends on the demand for it internationally. Everyone wants to invest in countries known by their political and economical stability. In this respect, Turkey has no such chance since nobody feels that the economy of Turkey in the future will be bright. A recent study done by Euromoney and AMEX shows that in 1989, Turkey will continue with its current development level with per capita income of \$1300.

If convertibility were established in Turkey, the forward market would develop more. The reason lies behind the interest parity theorem (IPT) used to calculate the forward rates. With such a high inflation, there would be a capital outflow which would increase the supply of foreign exchange abroad. Its price would fall causing interest rates on foreign currencies to rise. The discount on forward TL would fall. Also, the spot rate would be determined freely by the market forces. As a result, the uncertainty in the market would decrease encouraging the use of forward contracts.

4.2.3. NEW EXPERIENCES IN FOREIGN EXCHANGE MARKET

Since 1980, economic policies, have provided the banking system with the opportunity of getting acquainted with new dimensions of FX markets, that is forward operations.

As the system becomes more sophisticated, forward buying and selling gains importance. Since 1984, banks have been authorised to get involved in forward operations. Commercial banks can freely deal in forward transactions within the predetermined limits imposed by the CB and services with terms from 15 days to 6 months. Forward transactions must be related to imports and exports of goods and services, that is, "real" transactions. Forward rates are freely established between the banks and their customers. To that rate banks add some spreads. There is not much demand for forward transactions in Turkey because of the unawareness of its use and misperception of it as the future spot rate, not an estimator of it. Banks are also overcautious which hampers the development of their skills in forward dealing and makes them insensitive to exchange rate movements. They make forward purchases only on the account of the most preferred customers, which are not always determined by objective criteria. Besides all of the shortcomings, the continuous downward trend of the TL retards¹ the exercises of the techniques to cover probable future losses of a current dealing. This basic problem can only be solved by effective stabilization policies that

control inflationary pressures (Kalaycioglu,1988).

4.3. COMMENTS ON MONEY, CAPITAL AND FX MARKETS

There are three main factors underlying the capital, money and FX markets. These are reliability, liquidity and return, the most important being the first two in Turkey.

If you have a look at the three markets mentioned, the only one in which reliability is still not evident is the FX market. Investors in the capital market are still not fully aware of the concept of reliability. The main reason for the importance of liquidity is the high level of inflation. In terms of liquidity, inflation causes a preference towards short term treasury bills or very short term bank deposits, or other instruments of the money market.

CHAPTER V. CONCLUSION

The world is continuously changing and to find itself a right place; to be a member of the European Community, Turkey has to adapt to these changes.

The changes are both political and economical. Leaving aside the former, each country has a different economic policy which causes differences in the money, capital, and FX markets. Therefore, a study which analyzes an FX market (an element of it: forward transactions) should analyze also the macroeconomic aspects. However, in this work, the latter is not considered in detail since it would be quite an in-depth work. Instead, a global view of the changes is given to point out to what Turkey is adapting.

On the other hand, Turkish economy differs from the others. It faces rapid changes leading it into liberalisation; in almost every year a resolution is put into force by the governments. This causes a deterioration in reliability of the market so that, it does not show the responses required to make the policies work. This is especially encountered in the FX market, currently. As a result, the participants of that market are unwilling to use the risky instruments and prefer the safe ones. Combined with unawareness of those instruments or misperception of their uses (as in the case of forward contracts), the development of such instruments is prevented. So, to make the market work, reliability should be provided.

REFERENCES

1. Antl Boris, "Swap Financing Techniques", Euromoney, London, 1983.
....., "Currency Risk And The Corporation", Euromoney, London, 1980.
2. Atkinson Caroline, Kincaid Russell, Folkerts-Landau David, Mathieson Donald, Regling Klaus, Watson Maxwell, "International Capital Markets: Developments And Prospects", World Economic And Financial Surveys, IMF, Washington, D.C., Jan.1988.
3. Abac Selcuk, Turkiye'de Bankalar ve Bankacilik Sistemi, Apa Ofset A.S., 1986.
4. Alkin Erdogan, Bener Erhan, Demirgil Demir, Gonen Emre, The Exchange Rate Policy Of Turkey: Historical Background. Today's Implementation. Problems and Policy Proposals, SPAM.
5. Aydin Izzet, 1980'li Yillarda Turk Lirasinin Konvertibilitesi Sorunu, ITO, 1984.
6. Beidleman Carl, Financial Swaps: New Strategies In Currency and Coupon Risk Management, Dow Jones-Irwin, 1985.
7. Brewer Thomas I., Kenneth David, Lim Linda Y.C., Coredera Robert S., Investing In Developing Countries, Lexington Books, 1986.
8. Canevi Yavuz, "The Turkish Economy: Yesterday and Today", Middle East Business And Banking (MEBB), Sept., 1988.
9. Cooper John, The Management and Regulations Of Banks, St.

- Martin's Press, New York, 1984.
10. Eryurek Senay, Uluslararası Bankacılıkta Döviz Pozisyonu Ve Döviz Ticareti, 1987.
11. Ersan Doç. Dr. İhsan, "Konvertibilite Gerçekçi Değil", Düşünenlerin Düşünceleri, Milliyet, August-10-1989.
--, Bankalarda Döviz Yönetimi, Türkiye Bankalar Birliği Yayınları (TBB), 1988.
12. Exchange Arrangements and Exchange Restrictions, Annual Report, IMF, 1988.
13. Grabbe J.Orlin, International Financial Markets, Elsevier Science Publ. Co., New York, 1986.
14. Guran Nevzat, Döviz Kuru Sistemleri ve Ekonomik Denge, 9 Eylül Üniversitesi Yayınları, İzmir, 1987.
15. Hacche Graham, Quirk Peter J., Schoofs Viktor, Weniger Lothar, "Policies For Developing Forward Foreign Exchange Markets", Occasional Paper 60, IMF, Washington, D.C., June-1988.
16. Kalaycıoğlu Prof. Dr. Sema, "Foreign Exchange Markets In Turkey: Continuities and Changes", MEBB, Sept.-1988.
17. Leslie James, International Finance and Developing Countries, Longman, York Press, 1987.
18. Shapiro Alan C., Multinational Financial Management, Allyn and Bacon, 1989.
19. Solnik Bruno, International Investments, Addison-Wesley Publishing Co. Inc., 1989.
20. Dis Ticaret Sermaye Şirketleri, İş Bankası Yayınları, 1982.

21. Turk Finans Sektorunun Disa Acilmasi, TUSIAD, 1988.