Marmara University
Institute of Banking & Insurance

ALTERNATIVE PRODUCTS

of

INTERNATIONAL FX MARKETS

A master thesis

prepared by ; M.HAYATİ ERİS

Feb 14,1991

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PREFACE

The foreign Exchange Market is an International money market where foreign currency and some financial (they can be called as tools or instruments of FX markets) with a relatively short maturity is traded.

The FX market is taken into account by dividing the market into Spot and Forward Markets. The transactions in Spot or Forward FX markets may request same special techniques, we call them as products of FX markets.

As we explain FX money market products are used to obtain several aims. In the mid 70' s when Bretton Woods system of fixed exchange rates finally collapsed. There fore exchange rates have fluctuated wildly throughant the last 20 years and the demand from corporates for new methods of protecting againest FX risk grew. Banks too looked for new ways to supplemen their treasury activites. It was this trend primarily which facilitated the development of many new FX market produots : Swap, Futures, Options, Warrants, Vurrency Barrowing, Currency Deposits, Back-to-Back and parallel loans. Before those products there were a few techniques, like forward contracts-as a hedging methods. Hedging and Invesment profit are mainly aims of FX money market products.

The speculators start with no risk and buys or sells, assuming risk in order to make profits. The hedgers start with a pre-existing currency risk generated from the normal course of business. Both of them use same FX money market products for different goals.

This thesis is organized into six major parts. In the first two parts include generale knowledge about FX markets and some informations about the mechanics of currency trading including forward transactions in the latters parts we discus the products of FX markets.

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İstanbul, 14 February 1991

SECTION I

INTRODUCTION TO THE FOREIGN EXCHANGE MARKET

The foreign exchange market is the world's largest market. Participants in the market include importers, who may pay for goods invoiced in foreign currencies; exporters, who may have foreign currency sales; portfolio managers, who may buy or sell foreign currency assets and receive foreign currency dividends or interest payments; central banks, who may conduct exchange intervention; foreign currency brokers, who earn a profit by matching buy and sell orders; and commercial banks, who may be borrowing in multiple currencies, servicing their own or their customers' needs, and whose traders make the foreign exchange market through continual interbank trading.

The foreign market is an over-the-counter market. That is, there is no one physical location where traders get together to exchange currencies. Rather, traders are located in the offices of major commercial banks around the world and communicate using computer terminals, telephones, telexes and other information channels. If a foreign exchange (FX) trader in a bank in New York deals dollars for pounds with an FX trader in London, the traders will, overthe phone, agree on a price. Each trader will then enter the trade in the bank's computer or other record system, and then get on with the business of trading. The mechanics of actually transferring the currencies are not the traders' concern, so a trade takes a few seconds at most. Later, however, the two banks will send each other confirmation messages concerning the details of the trade, and will make arrangements for settlement of the traders' contract.

The most important communications network for international financial market transactions is the Society for Worldwide Interbank Financial Telecommunication (SWIFT) a Belgian not-for-profit cooperative,

The FX market is almost a twenty-four hour market, since as one center closes another is still trading. Business hours overlap around the world.

Senior traders may have Reuters and Telerate monitors installed at home so they can keep track of foreign exchange and news developments around the clock and adjust their foreign exchange positions accordingly.

FX traders do create prices. The creation of prices is no trivial feat, and before explaining how it takes place in the FX market it will be helpful to simplify by describing the simplest case of price creation. It is a simple Walrasian market. (1)

There are two prices, not one that are announced a bid price at which a trader is willing to buy, and an offer or asked price at which a trader is willing to sell. The difference between the two prices is referred to as the bid/asked (or bid/offer) spread. Traders in the major money center banks around the world who deal in two-way prices, for both buying and selling, are referred to as marketmakers.
Marketmakers differ conceptually from brokers, who are individuals who simply match up buy and sell orders from two different parties.

Some countries do have a daily "fixing" for their currencies, where a price will be fixed once a day by representatives of commercial banks and the central bank. They meet at a central location such a stock exchange and follow a process similar to the gold-price fixing. Day-to-day exchange rate movements hinge on the activity of interbank traders. Their actions and expectations are decisive. Any variable used as a basis for decision-making by traders is important in the s short run, while other variables may be irrelevant.

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(1) In Turkey caeh dey's FX rates decided by Central Bank and Commercial Banks all together, with a negotiation include buying andselling. But The Commercial Banks will have "few elasticity in FX trade.

THE MONETARY SYSTEM

The new monetary system gradually superseded the "Latin Monetary Union" founded in 1865 by four countries, of which Switzerland was one on the basis of bimetallic currencies.The monetary system which gained acceptance about 1880 and lasted until the outbreak of the first World War, is known as the Gold Standard. Its main feature was a system of fixed exchange rates whose parities were set in relation to gold. There were two main types of gold standard and the gold bullio standard.The enormous requirements of war-time economies during the first World War could only be met by the creation of money. To avoid unwanted side-effects in their domestic market, many countries took action to nullify the normal rules of operation of the gold standard. After the war, attemts were made to reintroduce gold currency, but they failed becouse many leading world currencies were thereby either under- or overvalued, and the balance of payments situation was distorted in consequence.
Inflation and devaluation were not however the only factors disturbing the international monetary system between the wars. From 1931 onwards, a number of countries responded to the crisis which convulsed the world economy in the first half of the Thirties by introducing exchange control. The primary need was to ensure that sufficient foreing exchange reserves were always available to meet current payments for essential requirement. To docthis, gouvernements had to exercices control over the import and export of foreing exchange, and the measures taken displayed the two essential features of any system of foreing exchange rationing; an embargo or limitation on export of capital, and the obligation to surrender to the state the foreing currency proceeds of exports or financial transactions.

Prior to the end of the second World War, it was realised that it would be necessary to establish some new international monetary arrangements in order to;
a)Determine the nature of the asset against which currencies could be valued.

b)Determine how the payment of imbalances between countries will take place.

c)See if the"world's monetary system can be centrally managed rather than being the concequence of individual national decisions.

Therefore, at Bretton Woods it was agreed that the International Monetary Fund should be established and that all member countries would agree to their currencies being expressed either as being worth a given amount of gold or as being worth a given number of United States dollars. In addititon, each member country agreed to see that these values were maintained within a given range. It was further agreed that no deviation from these ranges could occur without the agreement of the international Monetary Fund (IMF). The IMF could not object unless the change exceeded 10 per cent.

The main objectives of the new monetary order can be summarized as follows:To establish an international monetary system with stable exchange rates, to eliminate existing exchange controls, and to bring about convertibility of all currencies.In this new system the dollar occupied, from various points of view, a key position. The most important aspect was probably its role as reserve currency. In 1944 the United States gave an undertaking to the IMF that in its dealings with other monetary authorities it would buy and sell gold at a price of $ 35 per ounce. This undertaking guaranteed the dollar's convertibility into gold, and in consequence most countries adopted the practice of holding currency reserves not only in gold but also in dollars, which had the additional advantage of earning interest. To dissuade countries with balance-of-paymerts difficulties from over--hasty exchange rate reductions or from restrictions on payments and trade damaging to the world economy, the IMF set up a credit fund to help them; the Ordinary Drawing Rights.Countries with inadequate reserves could have recourse to Drawing Rights in order to ease the pain ful process of domastic adjustment necessar when their balance of payments went into deficit.

In 1950 the European Payment Union (EPU) was founded as part of the external trade policy of the Organisation for European Economic Cooperation. Its purpose was to organize European payments on a multilateral basis and to prepare the way for the change to convertibility. Convertibility came into force on December 1958 by the European Monetary Agreement.

The early seventies saw the increasingly swift decline and final collapse of the Bretton Woods system of fixed exchange rates. This was brought about chifly by a loss of cofidence in the dollar, due to the chronic Amarican balance-of-payments deficits. At the same time foreing officiel short-term claims on the USA grew so rapidly that by 1970 they were more than double the remaining United States gold reserves. In the circumstances the obvious question was how much longer the dollar's convertibility into gold could be maintained. August 15,1971 ; the United States was finally forced to abandon dollar-gold convertibility. As a result, most other countries joined in letting their currencies float. This was de facto, the end of official parities and intervention rates.

In mid-december 1971 The United States declared its readiness to devalue the dollar,provided Japan and the major Western European çountries would revalue their own currencies.

In an attempt to return to fixed parities, a meeting of the Group of Ten Countries in december 1971 at the Smithsonian Institute in Washington resolved to fix new parities, allow fluctuations of 2 1/4 per cent either side and raise the official price of gold to $ 38 per ounce. This was equivalent to a 7.9 par cent devaluation of the US dollar. The Smithsonian Agreement suffered from an underlying weakness, the dollar's convertibility into gold had not been reinstated. The realignment of exchange rates did indeed bring a temporary respite, but speculative movements of capital soon started up again.

When the industrialized countries went over to floating in 1973, it was not becouse flexible exchange rates were regarded as a better monetary system, but simply because the system of fixed

rates had collapsed.

The conference of the interim Commitee of the IMF in Jamaica in January 1976 marked the formal completion of the efforts to reform the international monetary system. The results scarcely merit the name of "reform" since they are little more than a legalization of the provisional measures imposed by circumstances - in particular the shift to flexible exchange rates.

Special Drawing Rights: During the Sixties, the volume of world trade expanded rapidly at a time when new production of gold was stagnant.Because of this, the currency reserves of central banks. Could only increase if there were a corresponding United States balance-of-payments deficit, it was feared that if America's external transactions were in balance a danger ous international liquidity shortage would result, and in 1969 therefore, after years of preparatory work, the members of the IMF decided to create Special Drawing Rights (SDRs).In contrast to the Ordinary Drawing Rights. SDRs are not credits, but currency reserves in addition to existing gold and dollar reserves. SDRs are therefore an international currency which can be used, however, only between central banks or between a central bank and the international Monetary Fund By contrast, non-banks cannot use SDRs as a means of payment in external transactions; by the same taken, they are not traded on the foreign exchange markets nor are they used as instruments for market interventions.

The SDR gives its bearer the possibility of purchasing foreign exchange from the central bank or monetary authorities of another member country.

If a country is faced with a balance-of-payments deficit, it can exchange its SDRs for a currency specified by the IMF without any special economic policy conditions attached.

The European Monetary System : The European Monetary System (EMS) is the successor to the European currency snake. That scheme for a European exchange rate grouping had its origins in the plans to extend the European Community (EC) into an economic and monetary union, as well as in the goal to reduce step-by-step the parity variations existing between individual EC currencies under the system of fixed exchange rates. These efforts were particularly spurred by the fixing of the EC currencies' range of permitted fluctuation (the so-called"tunnel") - set forth in the Washington Monetary Agreement of December 1971 - at ± 2 1/4 %, while increasing the range between indivudual EC currencies to ± 4 1/2 % in March 1972, the EC Council of Ministers reduced the upper and lower "tunnel" limits for EC currencies to 2 1/4 %, The member countries' central banks committed themselves to intervening to maintain this bandspread.

Not long after the "snake" came into existence, a process of contraction set in due to powerful balance-of-payment tensions among the participating countries. Britain left the "snake" in 1972 and Italy in 1973. France withdrew in 1974 for over a year. As a result, the "snake" did not succeed in playing the important role originally foreseen and was subsequently superseded by the European Monetary System, which took into account the experience gained with the "snake".

The European currency bloc (the EMS) represents an important fixed rate area. The EMS currencies, while not having fixed rates against the dollar, have fixed rates among themselves, with a ± 2 1/4 % margin (lira ± 6 %). Although professional dealing is based on dollar rates, it is important for the dealer to watch the EMS cross rates. For, if we assumethat for instance, the present rate of the dollar against the D-Mark will not change, given the margin within which the D-Mark can fluctuate against the Dutch guilder we can figure out to which extremes the guilder can go against the dollar.

The European Currency Unit (ECU) plays a key role in the EMS it is not only as the reference for the central rates and as the unit of account for payment and credit transactions betweev the central banks, it also serves as the basis for the exchange rates involved.

From the technical of view, the ECU is a currency basket made up of the nine EC currencies, The ECU's value is made of the weighted total of bilateral exchange rates.

	Amount in national currency in the definition of the ECU basket (2)
DM	0.828
FFR	1.15
STG	0.0885
LİT	109.0
DFL	0.286
BFR.COMM.	3.66
LFR	0.14
DKR	0.217
STG EİRE	0.00759

(2) - Foreing Exchange And Money Market Operations
Published by Swiss Bank Corporations

SECTION II

THE MECHANICS OF CURRENCY TRADING

All claims to foreign currency payable abroad, whether consisting of funds held (in foreign currency) with banks abroad, or bills or cheques, again in foreign currency and payable abroad, are termed foreign exchange.

A currency, whether in foreign exchange or bank notes, is usually called convertible if the person change it, freely into any other currency. The Swiss franc, for example, is fully convertible whether the holder is resident in Switzerland or abroad and regadless whether it is a matter of current payments or financial transactions.

REGULATIONS

Exchange regulations may also draw a distinction, as far as convertibility is concerned, between funds arising from current transactions (goods and services) and those coming from purely financial operations. only the latter in general being subject in some degree to a restriction on convertibility.

REGULATIONS IN TURKEY

In Turkey operations relating to the Foreing Exchange trade to be made with in the framework of The Legislations Concerning Protection of The Value of The Turkisch Currency (No: 1567) and The Degree of The Council of Ministers (No: 32 dated 11.8.1989); Declarations of Primeministers HDTM (No: 32-A dated 13.8.1989); Circulars of The Central Bank (No:1-A dated 15.8.1989 and fallow circulars)

The Banks are obliged to comply with the instructions issued if necessary by the Central Bank an the transactions to be concluded within the framework of the provisions of these regulations.

The main task of a bank's foreign exchange department is to enable its commercial or financial customers to convert assets held in one currency into funds of another currency. This conversion can take the form of a "spot" transaction or a "forward" operation.Banking activities in the foreign exchange field tend inevitably to establish a uniform price for a particular currency throughout the financial centres of the world. If at a given moment the market rate in one centre deviates too far from the average, a balance will soon be restored by arbitrage, which is the process of taking advantage of price differences in different places. It can be seen that foreign exchange business acts as a very important regulator in a free monetary system.

Professional foreign exchange dealing requires advanced tecnical equipment.

In line with the growth of international trade and the liberalization of capital movements, the volume of foreign exchange business grew tremendously in the course of the Sixties and the early Seventies.

Almost all trading of convertible currencies takes place with respect to the U.S. dollar. For example, both the STG and the DEM will be traded with prices quotedvis-a-vis the U.S.dollar. If a commercial customer asked for a DEM price in terms of the STG, this cross rate will be determined from the two dollar rates (see the example below). There are two major reasons for quoting all exchange rates against a common currency;

1- The first has to do with information complexity. If each currency, it would in volve an enormous number of dealing markets. For ten currencies there would be forty-five exchange rates.

The first currency would have an exchange rate against the other nine currencies.

The second currency would have eight additional exchange rates (since the exchange rate against the first currency has already been counted). And so on, giving a total of 9+8+7+6+5+4+3+2+1 = 45 exchange rates, foreing currencies there would similarly be n(n-1)/2 bilateral exchange rates.

2- To avoid the possibility of triangular arbitrage. If all currencies were traded against each other directly, the exchange rate of the dollar against the pound compared with the exchange rate of the pound against the DEM would imply an exchange rate of the dollar against the DEM. If this implied exchange rate differed from the direct dollar/DEM exchange rate by an amount sufficient to cover the costs of the transactions, there would be a profit available by buying at one of the dollar/DEM exchange rates and selling at the other. By contrast, when all cross rates are derived from the rate of the two currencies with respect to the dollar, there is only one available cross rate and no possibility of arbitrage.

If the quoted price is the dollar price of a unit of foreign exchange (or, restated, the number of dollars per unit of foreign exchange) then the quotation is said to be in American (or direct) terms.Examples of quotations in American terms include:

$ 1.55 = SRG 1 $ 40 = DEM 1 $ 50 = SF 1 $ 0044 = ¥ 1 (3)

If the quoted price is the foreign currency price of a dollar (or, restated, the number of units of foreign currency per one U.S. dollar), then the quotation is said to be in European (or indirect or reciprocal) terms. Examples ofquotations in European terms include:

SRG 645 = $ 1 DEM 2.5 = $ 1 SF 2.00 = $ 1 ¥ 227 = $ 1 (4)

In the interbank market, European terms are used for all currency quotations except for the SRG and the Irish pound, American terms being used for the latter currencies.

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(3) Incertain quotation

(4) certain quotation

(Thus, one would quote DEM 2.5 = $ 1, but $ 1.55 = SRG 1)Currency quotations are generally in American terms, however, in the markets for FX futures and options.

Three general types of transactions take place in the FX market; spot,forward and swap.

Spot transactions involve an agreement on price today, with settlement day (actual delivery of currency for currency) usually two business days later, When, however, currencies whose home countries are in the same time zone are traded, such as the U.S. dollar forthe Canadian dollar, or the U.S. dollar for the Mexican peso, settlement is typically one business day later.

Forward transactions involve an agreement on price today for settlement at some date in the future (beyond the normal time lag for spot settlement)

Sometimes a forward transaction is called an outright forward to emphasizethat no spot transaction is in volved. Outright forward transactions usually take place between a bank and a commercial customer. For example, Exxon may have a scheduled payment of STG 25.000.000 in eight months and may buy that amount of British pounds forward today.No money will change hands now. The forward contract will simply lock in the price at wich the transaction will take place between Exxon and Exxon's bank eight months from now. By contrast, transactions involving forward exchange in the interbank market usually take the form of swap transactions.

A swap is the sale of a foreign currency with a simultaneous agreement to repurchase it at some date in the future, or the purchase of a foreign currency with an agreement to resell it at some date in the future. For example, Citibank might buy DEM. 2.500.000 from Deutsche Bank for $ 1.000.000, with a simultaneous agreement to sell the DEM back in six months for $ 1.050.000 In a swap transaction, it is the difference between the sale price and the repurchase price (and not their absolute magnitudes) that is important. This difference is called the swap rate. It was estimated in 1983 that 65 percent of trading by New York banks was in the spot market, 33 percent in the swap market, and 2 percent in the market for outright forwards.

A- SPOT TRANSACTIONS:

All foreign exchange trading involves two prices, a bid or buying price and an asked (offered) or selling price. However, all transactions also involve two currencies.So it is essential to keep straight which currency you have in mind. If you bid for DEM with is the same as offering dollars for DEM. Thus, whether an exchange rate represents a "bid" price or an "offered"price depends on which currency you use for reference. The following example explores this in detail and establisher the convention for quoting exchange rates in this book.

EXAMPLE :

A trader quotes the DEM against the dollar at a bid/offer price of DEM 2.3697/2.3725 per $ 1
It is natural to think of the small number, DEM 2.3697, as the offer price, and the large number, DEM 2.3725, as the offer price.For the U.S. dollar, while DEM 2.3725 is the offer (or asked) price for the U.S. dollar.In order to keep this straight, keep in mind the trader's objektive: to make money. The trader will make money by giving away as few DEM as possible when he purchases dollars (hence his bid for the dollar is DEM 2.3697), while acquiring as many DEM as possible when he sells dollars (hence he offers to sell $ 1 for DEM 2.3725).

The calculatimn of cross rates is shown in the following example: A bank is currently quoting the following two exchange rates with respect to the dollar:
DEM 2.3697 / 2.3725 per $ 1 $ 1.5525 / 1.5535 per STG 1
What DEM per STG cross rate would the bank quote? The way to answer this question is conceptually to engage in two transactions with respect to the U.S. dollar.

The trader will get the most dollars for DEM by dealing at the DEM 2.3697/$ price and will get the most STG for dollars by dealing at the $1.5525/STG price. Hence, the bid price for STG would be:
(DEM 2.3697/$) ($ 1.5525/STG) = DEM 3.6789/STG

Because the trader's purchases and sales of a foreign currency are not equalized, the trader begins to build up a net short or long position. (A short position is involved if the amount sold is greater than the amount purchased, while a long position is involved if the amount purchased is greater.)

Having a net long or short position can be very risky.

FOR EXAMPLE :

A trader in a bank that is concerned with dollar profits is short DEM 15.000.000. The current exchange rate is DEM 2.500 = $ 1, so that the bank's liability is $ 6.000.000. If the exchange rate were suddenly to jump to DEM 2.600 = $ 1. The bank's liability would increase to $ 6.250.000. Because of exchange rate risk, most banks set position limits which are the maximum net FX exposure traders can have at any one time.

A spot settlement date is usually two business days after the treading date for either the European currencies or the yen traded against the U.S. dollar.Thus if a London bank sells DEM to a New York bank for dollars, then two business days later the London bank will turn over a DEM deposit in Germany to the New York bank, while the New York bank will turn over a dollar deposit in the United States to the London bank. The "compensated value" principle says that settlement of both sides of a FX contract will take place on the same working day.

A market-maker in foreign exchange normally bases the opening or beginning rates each day on the closing rates in the preceding time-zone. These rates may then be adjusted if conditions have changed which necessitate price alteration because of some new or anticipated item of economic or other news.

Markets are not free to move completely as they wish because central banks need to stabilise and at times influence the exchange rates.

Profits can also be made in spot dealing by the simultaneous buying and selling between different counterparties in the same or different centres to take advantage of price differences. This is called "arbitraging" or "jobbing". It is probably one of the most usual ways of making a profit. Sometimes it is possible because of different market practices. For example:

In Frankfurt : $ / DEM = 2.1008 - 16
In New York : DEM / $ = .4750 - 4760
i.e. $1 = DEM 2.1008 or $1 = DEM 2.1016 in Frankfurt
DEM1 = $ 4760 or DEM1 = 4750 in New York

Frankfurt is quoting the direct way and New York the indirect way. To calculate the New York rate is, or should be, the reciprocal of the European quote. Therefore, using the above:

(a) $\frac{1}{2.1008}$ = .4760 = rate for buying dollars and selling Deutscmarks.

(b) $\frac{1}{2.1016}$ = .4758 = rate for selling dollars and buying Deutschmarks.

In this case, rate (a) is identical in both the markets but rate (b) is different.

So, in Frankfurt the bank buys $ 2.000.000 at 2.1016 and sells DEM 4.203.200. In New York the bank sells $ 2.000.000 at 4750 and buys DEM 4.210.526.30. Therefore, a profit has been made of DEM 7326.30 because the rates had moved out of line with each other by 0008. This is called an eight-point difference. The fourth place after the decimal is called a point and the fifth, a pip.

In a very active and volatile market with prices continually changing, the market rate of exchange can move suddenly and what seemed to be a certain profit can become a certain loss. To obviate this problem a dealing will often widen the spread of the quotation, either to avoid dealing or in the event that a deal is done, to ensure that a reasonable chance of obtaining a profit exists. For example:

Market: $/DEM 2.1010 - 15 (narrow spread)
$/DEM 2.1000 - 30 (wide spread)

If the trader deals, a profit should result because the margin between bid and offer has been increased.

If a trader does not know the way of the market or cannot anticipate the trend, it is unlikely that any businness will result as the competition will always have a better price for the customer. Spot dealing is not without its risks.

B- FORWARD TRANSACTIONS:

Forward exchange is traded in the interbank market in connection with spot exchange.

If the value of a foreign currency is greater forward than it is spot, the foreign currency is said to be at a premium. If the forward value of a foreign currency is less than is the spot value, then the foreign currency is at a discount.

Because forward exchange is traded at a premium or discount to spot exchange in the interbank market, forward rates are quoted in terms of the premium or discount that is to be added to the spot rate.

Forward or futures dealing in foreign exchange is a foreign exchange deal for any date beyond the spot date. As mentioned, the foreign exchange can be bought or sold on an outright basis for a particular date at a particular rate, or it can be on a swap basis, which is when one currency is bought against another for one value date, either spot or forward, and then simultaneously sold against the same currency for another forward date.

Forward transactions are used by importers and exporters to protect themselves against a movement in the exchange markets and thereby in effect take out an insurance policy(5)Also, the forward markets can be used to protect a non-trade related exposure: for example, deals of a financial nature such as the protection of foreign currency capital if borrowed in one currency and used in another, or the placement of a loan or deposit in one currency which is different from the currency originally borrowed.

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(5) Forward transactions has a hedging fonction in that cases. As we said in Preface FX market products are the ways of hedging.

The following formula can be used to decide forward rate or swap differential:

$$\text{Forward Rate or Swap Differential} = \text{Spot Rate of Exchange} \times \frac{\text{No. of Days}}{360} \times \text{\% p.a Difference}$$

It is possible, using the above formula, to calculate the cost of the hedge as follows:

$$\text{\% p.a. Cost / Profit} = \frac{\text{Swap Differential} \times 360}{\text{Number of Days} \times \text{Spot Rate of Exchange} \times 100}$$

This is the basic interest arbitrage formula but it ignores the effect of the interest which would have to be paid or received if a borrowing and lending were to take place. This can then be likened to the insurance premium.

It should also be realised that this percentage per annum might represent an extra profit to the exporter and not a cost. For example:

A UK exporter sells goods worth $ 1.000.000 in the USA. Terms of trade: settlement in 180 days.
Spot rate of exchange : $/STG 1.9000-05
6 months' forward swap differential : 250 - 240 (a premium - so more expensive)
Changes of Outright rates of exchange for 6 months = 1.8750-1.8765
The changes if the exporter today executes a forward contract with the bank whereby the $ 1.000.000 is sold to the bank for delivery in 6 months' time, the deal will be at the bank's buying rate of 1.8765. This will produce sterling to the exporter of STG532.907. If a spot deal is done in 6 months time, the rate could be higher, lower, or the same as today at 1.9005. If the same, then $1.000.000 would produce STG 526.177 at 1.9005.

Therefore, the exporter realises an additional profit of STG 6730 or 2.5 % p.a.

In some cases, dealing in the forward market and creating such a profit is then used by the exporter to reduce the price of the product in order to enable the exporter to be more competitive and thus ensure that the contract is won.

What determines whether a foreign currency will be quoted at a premium or discount with respect to the domestic currency ? The answer lies in interest rates, and the relationship between spot and forward exchange can be summarized in the form of an arbitrage condition called interest parity. If interest rates are higher in the domestic country than in the foreign country, then the foreign country's currency will be selling at a premium in the forward market, while if interest rates are lower in the domestic country, then the foreign currency will be selling at a discount in the forward market.

Before getting to the arbitrage strategy that brings about interest parity, we should explore a few market conventions about how interest rates are quoted. In particular, for reasons mentioned later, we will be especially concerned with interest rates on eurocurrency deposits. Eurocurrency interest rates, like all interest rates, are always quoted at a yearly rate. Thus if a 30-day rate of "8 percent" is quoted, that does not literally mean 8 percent over the 30-day period but is an artificial construction. It is a "yearly" rate with the year in question a 360-day year. A 30-day rate of "8 percent" means that, for a $1 deposit, at the and of 30 days one will receive $ (1+ .08(30/360)) = $.006667 back. That is, one adjusts the "yearly" interest rate by changing it to a decimal and then multiplying by the fraction of a 360-day year involved in the time period of the deposit.

The 360-day year applies to most eurocurrencies. Notable exceptions, however, are the British pound and the Belgian Franc which use 365-day years, Therefore "8percent" paid on a eurosterling deposit for 30 days would, for an initial deposit of STG1, yield.

STG(1+.08(30/365)) = STG1 .006575 at maturity.

Let S(t) be the domestic currency price of spot foreign exchange at time t.Let F(t,T) be the domestic currency price of forward exchange at time t, for a contract that matures at time t+T.Let i and i" be the yearly rates of interest paid on eurocurrency deposits denominated in the domestic (i) or foreign (i") currency. The maturity of the deposits is chosen to coincide with the maturity of the forward contract.

Consider a trader with access to the interbank market in foreign exchange and eurocurrency deposits. At time t, this trader can borrow one unit of the domestic currency at an interest rate i, for which he will have to repay 1+i(T/360) at time t+T :

With one unit of domestic currency in hand at time t, the trader can buy 1/S(t) units of foreign currency. If this amount is places on deposit, he will receive (1/S(t)) (1+i" (T/360)) back at time t+T. This amount of foreign currency will, however, have an uncertain value in domestic currency terms. So to lock in a domestic currency value now he can sell this amount forward at the forward rate F(t,T). The domestic currency value of the amount sold forward is therefore (1/S(t)) (1+i"(T/360)) F(t,T). To summarize:

EXAMPLE :

Let the stop rate S(t) = $.40000/DEM and the 1-year forward rate F(t,T) = $.42026/DEM. Assume that the forward contract will mature in T= 365 days from the spot value date, Let the rates on eurodollar deposits and euro-DEM deposits be, respectively, i=11.3 % and i" = 6.0 %. Then comparing the return on demostic borrowing with the return on covered foreign lending.

$1+i(T/360)=1+.113(365/360)=\$1.114569$

$(1/S(t))(1+i^{*}(T/360))F(t,T)=(1/.40)(1+.06(365/360))(.42026)=\$1.114565$

For each dollar borrowed domestically, a trader would have to repay $1.114569. The return from using the $ 1 to buy spot foreign exchange, placing the deposit at the foreign rate of interest, and selling the total return forward would be $1.114565. These two amounts are so close that it would in all probability not be worth anyone's time trying to exploit the difference. So in this case, interest parity can be said to hold. In fact, as we will see when we look at the realistic case involving both bid and ask prices, the two sides of the transaction can differ by a good bit more than they do here, and still there may be no profit opportunity.

- FORWARD RATE AGREEMENT (FRA)

A forward (future) rate agreement is similar to an interest rate future in that it is a contract in which two parties agree the interest rate to be paid on a notional deposit ol specilied maturity on a specific future date. The contract enables the purchaser to fix interest costs for a specife (usually short) future period. At maturisy the seller pays the purchaser for any increase in rates over the agreed rate and if rates have fallen the purchaser pays the seller. The amount of this settlement is discounted to retlect that payment at the be-gining of the deposit period (of the national deposit) and not maturity. The princinal amounts subject to the agretment are not exchanged.

Benefits of FRA ;
Simple and flexible way of fixing future interest rates.
Unlike financial futures there are no margin calls to be made,
Instrument can be tailerod to precise requirements
FRAs are available in currencies in which there are no financial futures.

Risks and disadvantages of FRA ;
No central market place so liquidation is possible only by agreement to cancel or by a reverse transaction.

Compared with financial futures the spread in bid and ofter rates is wide.

- RANGE FORWARD CONTRACT

It is a forward foreign exchange contract that specifies a range exchange rates within which the currencies will be exchanged at maturity. The user can take advantage of favourable currency movements to the upper end of the range, and the risk is limited to the lower end of the range if the movement in exchange rates is unfavourable. If at maturity the exchange rate is inside the range, the contract will be settled at the spot exchange rate ruling at maturity. When executing a Range Forward contract, the buyer chooses one of the two ands of the range specitication and the final expiration date of the contract. The dealer offering the contract chooses the other end of the range by reference to market conditions such as the interest rate differentials and bid-offerspreads.
The dealer who offers the contract to the customer hedges his position usingaczero cost option strategy (explain in the options overview). The dealer is therefore able to offer the customer a play on exchange rates without charging a premium.

- BREAK FORWARD CONTRACT

This instrument is a conventional forward foreign exchange contract which allows the bank's customer to break the contract at a specified rate ('the break rate') if the spot rate at maturity is more favourable than the forward rate which had been specified in the contract.
The cost to the customer of having the choice of breaking the contract is reflected in paying a forward rate above the market price.

If a customer buys US$ forward using a Break Forward contract and in the intervening period prior to maturity the $ weakens relative to the agreed forward rate, the $ can be bought at that rate and sold to the bank at the break rate. The $ are then repurchased at the spot rate. Thisthe $ will be cheaper than if the customer had entered into a conventional forward contract.
As with Range Forwards, the dealer is able to offer this contract to his customer by making use of a zero cost currency option strategy.

- PARTICIPATING FORWARD CONTRACT

The participating forward contract is a contract to buy or sell foreign currency, at a fixed future date, with a predetermined minimum or floor exchange rate and unlimited profit porential if exchange rates move favourably. If the currency moves in the buyer's favour, the benefil equats a percengate of the total currency move which is specilied in advance. This percengate is called the participation rate.
The buyer of the Participating Forward contract pays for the downside protection and has unlimited upside potential but with less than 100% participation in favourable movements in exchange rates.

As with forward contracts, the Participating Forward is a binding contract and can therefore create an exposure (the floor exchange rate) if intended to hedge a future commitment which does not materialise. (6)

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(6) The contracts of forwards were designed by some differenk Banks and Banker corparations. For example;
RFC designed by Salomon Brothers
PFC " " " "
BFC " " Midland Bank

Resources; COOPERS AND LYBRAND A QUIDE TO FINANCIAL ENSTRUMENTS
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SECTION III

SWAPS

One of the most rapidly growing and innovative areas in the international capital market has been the swap market. The exponential growth in swaps is largely due to their flexibility. Swaps have become responsive vehicles for corporate treasurers, allowing almost instantaneous reactions to changing financial conditions. One of their most appealing features is that they can be "fine-tuned" or "customised" to fit almost any situation. Perhaps the ultimate attraction of swaps is that they improve profitability by facilitating the following :

- the obtaining of fixed rate financing at rates below those available by direct access to the public debt or private placement market ;
- the accessing of fixed rate funding without tapping traditional sources of capital and thereby saving those sources for future use ;
- the arrangement of long term floating rate debt at below market rates through selective use of an issuer's fixed rate capital market potential ;
- the provision of alternative sources for floating rate funds when considering all possibilities in debt management ;
- allowing the restructuring of the debt portfolio without raising new unnecessary finance ;
- changing the composition of types of investment assets in line with portfolio management or interest rate views without involving sales or purchases.

Originally most swap transactions were matched deals in which an intermediary bank brought together two counterparties, or end-users with matching requirements. The intermediary bank would typically write separate contracts with the end-users, act as principal in both swap contracts, and charge an intermediation margin and possibly an arrangement fee.

A swap is an agreement between two parties to exchange the servi-

cing of their debt or income on investments. Swaps can be established for exchange of interest rates, currencies, basis rates or any combination of these. In the case of currency swaps the principal amount may be exchanged at the start and end of the period of the swap.

SWAP STRUCTURES

There are four basic structures, as follow, which encompass a definition of the most common type of swaps :

a) interest rate swaps ;
b) basis swaps ;
c) currency swaps ;
d) fixed/fixed currency swaps.

There are also some another special type of swaps : (7)

e) currency coupon swaps ;
f) asset swaps.

a) Interest Rate Swaps :

In terms of transaction volume the interest rate swaps is by far the most common. Essentially it is a contract between two counterparties to exchange fixed interest rate payments (not principal). It normally involves two unrelated borrowers who have borrowed identical principal amounts for similar periods from different lenders, with one borrower paying a fixed rate and the other a floating rate of interest. The payment will be in the same currency on a given notional sum.

It allows a company or bank to convert existing assets or liabilities to another interest rate basis which reflects their current policy of financial management. Cost savings can arise from the pricing distinctions available to each party.Interest rate swaps can be utilised to convert floating rate debt into fixed rate debt or vice versa. In addition, interest rate swaps can be executed on different floating rate measures if a market has enough floating rate alternatives. Generally, interest rate swaps are quoted as a fixed rate against a floating rate index in the particular currency being used. Through exchange of each party's comparative ed-

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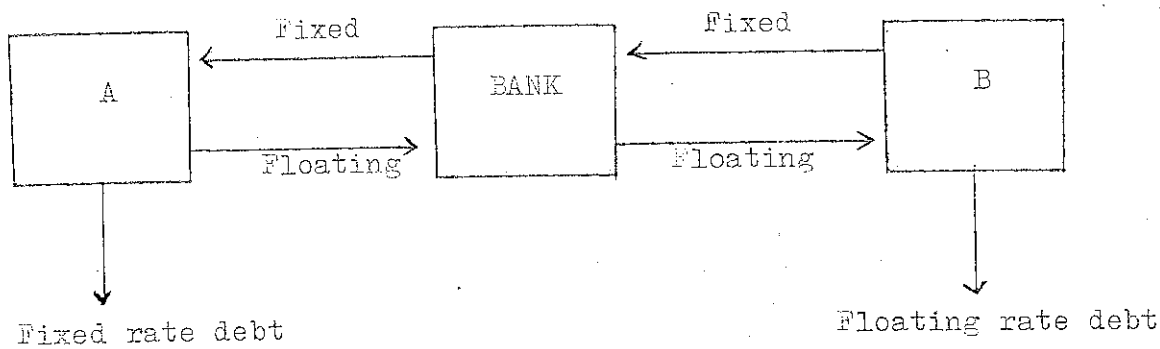
(7) There also can be another kinds of swaps. Like; Fixed to floating ar Floating to Floating Swaps. But they are not widely known.
Resource: Doç.Dr.İhsan ERSAN - Bankalarda Döviz Yönetimi

ge, each party can obtain a better rate than throught direct tapping of markets.

The mechanics of interest rate swaps :



Example :

Stage One

Borrower A, a highly rated corporate name, has an excess of finely priced fixed rate debt. It would like to utilise this advantage to obtain lower cost floating rate interest on $ 20,000,000 of its debt. Borrower B has a lover credit rating than A in the long-term debt markets, but has good access to short-term debt.

Stage Two

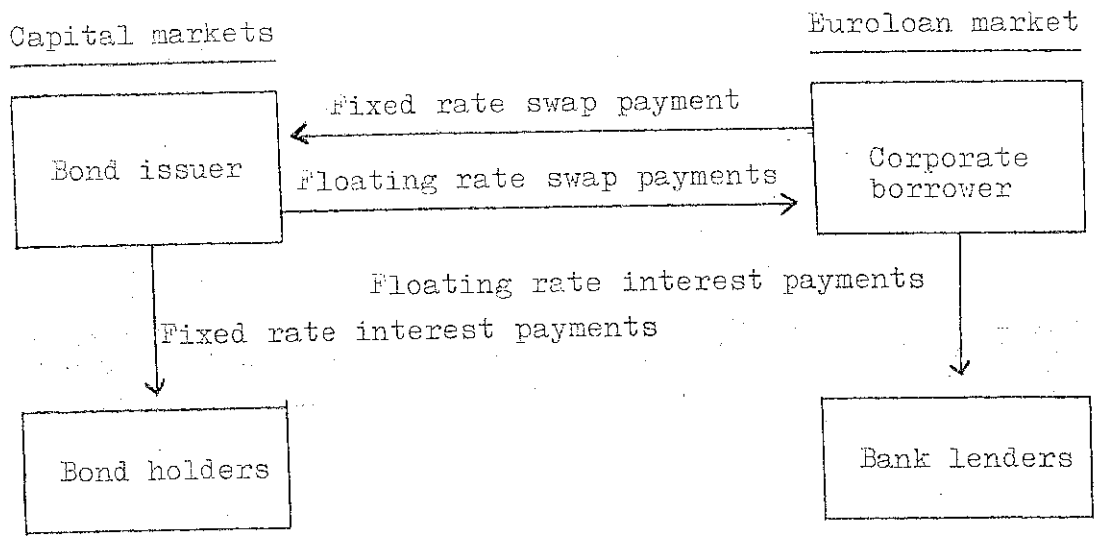
An intermediary arranges for Borrowers A and B to exchange their interest rate obligations at levels that produce at rate improvement for both of them. Every six months the following interest rate flows will occur.

Stage Three

There is no need to exchange principal amount at either inception ormaturity. As both flows are based on the same notional principal amount, the interest payments continue to be exchanged over the life of the agreement until final maturity. The risk being assumed by the intermediary is contingent. If either party fails to make a swap payment to the intermediary, then the intermediary will not be obliged to make a payment to that party. Consequently, the risk

being carried by the intermediary in the event of default by one party is limited to the excess, if any, of interest payable to the other party over the interest to be received from that party.

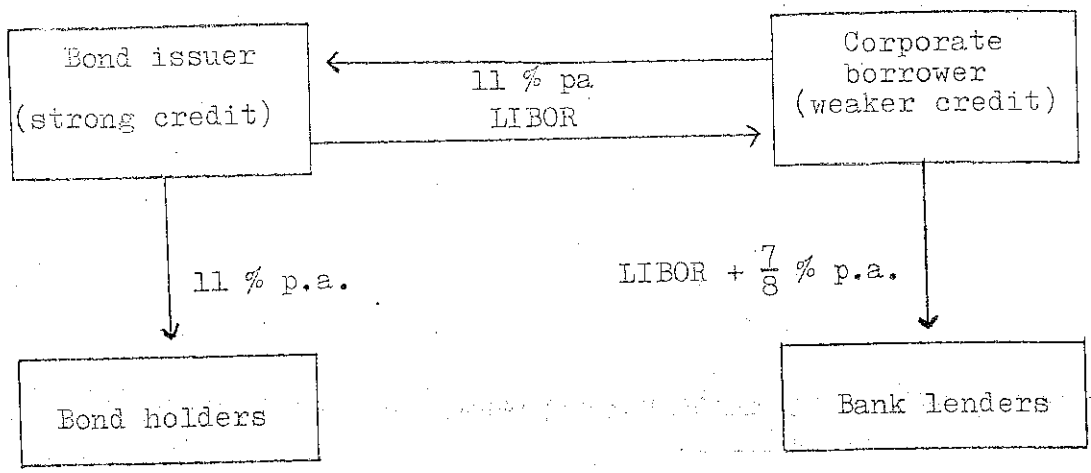
Basic logic of interest rate swaps :



By utilising each other's relative strengths in different markets the swap counterparties can gain access to those markets at lower borrowing costs than could be otherwise achieved. For instance, a bond issuer can convert its fixed rate liability to floating rate while allowing a corporate borrower to convert the floating rate on its Euroloan to a fixed rate. Underlying this basic logic of interest rate swaps are the large interest rate differentials which exist between the fixed and floating rate markets. Strong credits can raise fixed rate funds in the capital markets at up to 3 % per annum cheaper than the weaker credits, weaker credits usually have to pay no more than about $\frac{5}{8}$ % per annum above that which strong credits pay in the Euroloan market for floating rate funds. Such interest rate differentials can be used to provide both parties with access to cheaper funds, where the interest rate swap shows how the strong credit has converted its medium-long-term costs of borrowing from 11 % per annum to the short-term interbank rate. Conversely, the weaker credit has been able to utulise an interest

rate of 11 $\frac{7}{8}$ % per annum for term funds, a rate of interest far cheaper than if it had issued bonds in its own name.

Interest rate differentials in an interest rate swap :



The bond issuer has not paid the corporate borrowers $\frac{7}{8}$ % per annum margin over LIBOR. It has, therefore, assumed only part of the corporate's floating rate interest liability. The "partial swap" element is used to balance the advantage for each counterparty and is usually negotiable in arranging an interest rate swap.

Sample borrowing rates for seven years funds :

	Capital markets (fixed rates)	Euroloan market (floating rates)
Strong credits	Lowest rates	LIBOR + $\frac{3}{8}$ % p.a.
Weaker credits	Up to 3 % p.a. higher	libor + 1 % p.a.
Differential	3 %	$\frac{5}{8}$ %

If the fixed rate swap payment has been 11 $\frac{1}{4}$ % per annum the bond issuer would have retained $\frac{1}{4}$ % from the fixed payment flows and effectively obtained funds at LIBOR minus $\frac{1}{4}$ % per annum, while the

corporate borrower would have converted its borrowing cost to 12 $\frac{1}{8}$ % per annum fixed (11 $\frac{1}{4}$ % + $\frac{7}{8}$ %). In addition to locking into a fixed interest rate, it is usual for the fixed rate payer to reimburse the bond issuer with the issue cost. This is because the weaker credit is indirectly gaining access to the fixed rate capital markets through the swap arrangement.

b) Basis Swaps :

The structure of the basis rate swap is the same as the straight interest rate swap, with the exception that floating interest calculated on one basis is exchanged for floating interest calculated on a different basis. The forerunner of this type of swap was the US dollar prime rate for LIBOR swap. Subsequently larger markets developed for the exchange of one month US dollar LIBOR for six month US dollar LIBOR and more recently US dollar LIBOR for US dollar commercial paper. The availability of the basis rate swap market provides an excellent facility to arbitrage spreads between different floating rate funding sources. More importantly, it provides a discrete and most efficient method for Europeans, in particular to simulate the US commercial paper funding market without the necessity of meeting the stringent US requirements for a commercial paper programme.

c) Currency Swaps :

A currency swap is a legal arrangement to exchange payments denominated in one currency for those denominated in another, typically for a period of between two and ten years. The market generally operates on the standard of the fixed rate of the foreign currency against six months US LIBOR, although it is possible to have currency swaps structured differently. The exchange rate is set at the beginning of the transaction and is fixed for the entire life. There must be an exchange of the principal amounts at the final maturity.

The term "currency swap" sometimes gives rise to confusion as it has two meanings. In the foreign exchange markets, the term "swap" is used to denote a spot sale and forward purchase of a currency.

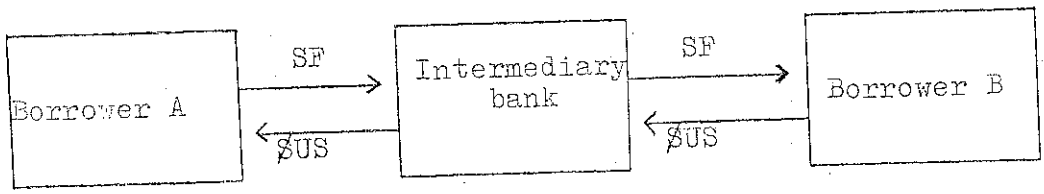
In the capital markets a swap usually involves an exchange of interest payments and principal denominated in one currency for payments in another.

There are two main types of currency swap: fixed/fixed currency swaps and fixed/floating currency swaps. The latter are usually known as "cross currency" interest rate swaps.

d) Fixed/Fixed Currency Swaps :

Fixed interest payments in one currency are exchanged for fixed interest payments in another. The following three basic stages are common to all currency swaps:

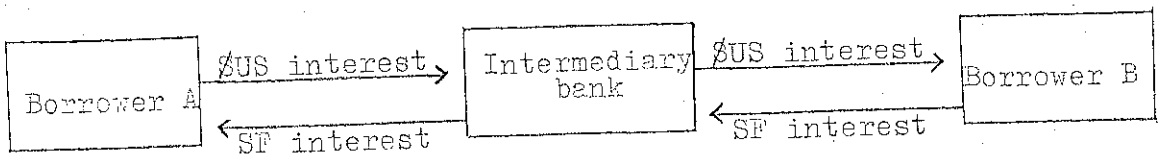
Stage one in a currency swaps : (borrower A then has access to $ US and borrower B access to Swiss francs)



Stage One :

Initial exchange of principal: at the commencement of the swap, the counterparties exchange the principal amounts of the swap at an agreed rate of exchange. Although this rate is usually based on the spot exchange rate, using the mid-rate, a forward rate set in advance of the swap commencement date can also be used. The initial exchange may either be on a "notional" basis (i.e. no physical exchange of principal amounts) or a "physical" exchange basis. The standard transaction size is usually $US 5,000,000.

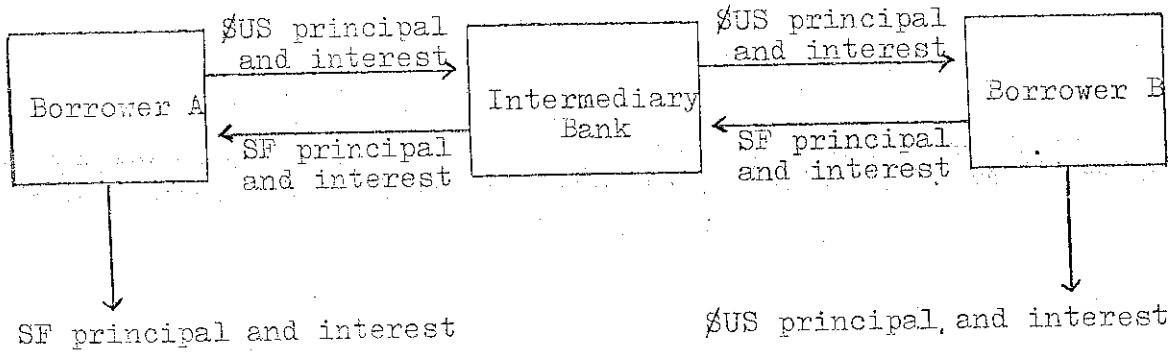
Stage two in a currency swap : (at each interest payment date, the borrowers will pay to the intermediary, an amount of currency based on the agreed interest rate)



Stage Two :

Ongoing exchanges of interest: once the principal amounts are established, the counterparties exchange interest payments based on the outstanding principal amounts, at the respective fixed interest rates agreed at the outset of the transaction.

Stage three in a currency swap : (At maturity the original principal amounts are re-exchanged through the intermediary)



Stage Three :

Re-exchange of principal amounts: on the maturity date, the counterparties re-exchange the principal amounts established at the outset. It is important to note that this re-exchange on maturity is conducted for the same amount and, therefore, at the same exchange rate as the initial exchange, irrespective of whether such initial exchange is a physical exchange or not. This three stage process is standard practice in the swap market and results in debt raised in one currency being transferred into a fully hedged fixed rate liability in another.

For example, suppose borrower A prefers his or her obligations to be in floating rate $US but can obtain prefential rates relative to borrower B by tapping the Swiss franc market. Borrower B, on the other hand, prefers obligations to be in fixed rate SFs, but can obtain preferential terms relative to Borrower A by borrowing in the floating rate $US market.

Borrower A will, therefore, borrow in the fixed rate Swiss franch market and borrower B will borrow in the floating rate $US market A will then pay the proceeds of his or her SF loan, via an intermediary, to borrower B and vice-versa, B will pay the proceeds of his or her $US loan, via the intermediary, to borrower A.

e) Currency Coupon Swaps :

One of the most important features of the swap market is that swaps enable a borrower to raise funds in the market to which it has best access but to make interest and principal payments in its preferred form of currency. This separation of the funding decision and the choice of servicing debt enables borrowers to exploit their comparative advantages.

Currency coupon swaps are essentially combinations of fixed rate currency swaps and interest rate swaps. The structure of the transaction is identical to that of a fixed/fixed currency swap except that fixed rate interest in one currency is exchanged for floating rate interest in another currency.

f) Asset Swaps :

Traditionally swaps were used to transform the currency or interest base of liabilities. The same techniques have increasingly been used to transform assets. Asset swaps (or synthetic securities as they are also known) simply combine an asset and a swap. A fixed rate asset can, therefore, be transferred into a floating rate asset either in the same or a different currency. The market works by taking advantage of price imperfections in the bond and swap market. The technique is to buy bonds relatively inexpensively in relationship to credit rating, by trading in the secondary market and to combine them with an interest rate swap.

The bulk of the market has involved the creation of synthetic floating rate notes (FRNs). The buyers of synthetic assets include commercial banks seeking high yielding assets, FRN portfolio managers and corporate and institutional fund managers. Buyers may either purchase bonds and arrange separate swaps themselves, or buy a pac-

kage of bonds and a swap from an intermediary. Intermediaries tend to be major investment banks, merchant banks or commercial banks with a presence in the secondary bond market, with proven swap and marketing/sales capabilities.

SWAP RISKS

Risks typically associated with swap activities largely relate to the roles of individual parties in the swap.

a) Credit Risk

Swaps are not inst an interest rate play: they are a bet on the continued creditworthiness of the counterparty, i.e. the risk that the counterparty may default. Even then, it is not the principal or notional amount that is at risk but the replacement cost of a missing interest.

The amount of money involved in credit risk can be particularly large. For example, take a typical swap: a $ 100,000,000 seven year transaction with five-and-a-half years to maturity. Suppose the bank commenced its floating payments at 11 % but then interest rates subsequently reduced by 300 basis points. The borrower continues to pay fixed rates at 11 $\frac{1}{2}$ %. Marking the swap to market, the bank calculates its exposure as 17.8 % or $ 17,800,000. That is how much it would cost to replace the original stream of payments. The problem, of course, is that nobody is going to come up with 11 $\frac{1}{2}$ %, i.e., the original fixed-rate payment, in the lower-rate environment.

b) Position Risk

Position risk is the risk that interest rates and exchanges rates will move adversely, after the deal is struck. Losses can arise either if interest rates and exchange rates move adversely resulting in a position loss, or if interest rates move favourably, resulting in a position gain but with the counterparty defaulting.

There are three main features of position risk, as follows :

1. Position risk varies over the life of a deal according to mo-

vements in interest rates an/or exchange rates.

2. Position risk can be either positive or negative.

3. Position risk cannot be determined in advance.

QUANTIFICATION OF THE RISK

Most players in the swap market take account of several factors in assessing risk. Risk is then quantified by aggregating the following components :

1. Interest Differential Formula

$$P \times \frac{D}{100} \times T$$

P = the principal amount of the swap

D = the difference between the fixed rate applicable to one lef of the swap and the estimate of the maximum/minimum rates applicable to the floating rate leg of the swap during its term. These two differentials (i.e. between the fixed rate and the maximum floating rate and between the fixed rate and the minimum floating rate) are separately applied to the above formula in order to arrive at individually assessed risks for each counterparty (as the risks cannot both materialise, they should not be aggregated).

T = the remaining term of the swap in years.

2. Settlement Risk

An amount equating to 10 % of the exposure arrived at under the above formula is added if a settlement risk on the gross interest cash flow arises. This does not always apply since swaps are settled net.

3. Internal Assessment Rate

A percentage is applied to the quantified interest rate risk to arrive at the assessed exposure for internal purposes. To realise the maximum risk would require both an immediate default by one of the parties and an interest rate differential at the maximum

figure for each year during the life of the transaction. The interest rate risk reduces over the life of the swap to zero at maturity.

4. Foreign Exchange Risk

An amount equating to approximately 15 % of the principal amount being swapped is added if there is more than one currency involved and accordingly a forward foreign exchange risk exists. This assessment is not reduced over the life of the swap as exchange rate movements can be volatile at all times.

ADVANTAGES TO THE BANK

1. Off Balance Sheet :

a) By arranging swaps and acting as the intermediary, a bank can earn substantial fee income without utilising any assets. Interest rate swaps could provide a major source of off balance sheet income in the future.

b) Arrangement fees usually amount to between $\frac{1}{4}$ % and $\frac{1}{2}$ % flat, while the intermediary fees range from about 0.1 % pa to 0.375 % pa (depending on risk) during the life of the swap. In both cases these payments are calculated on the principal sum involved in the swap transaction, while the risk to the bank is only a small fraction of this figure. The return to the bank is, therefore, enhanced considerably.

2. On Balance Sheet :

c) In marketing to wide range of corporate customers, a bank can use interest rate swaps to offer term lending at fixed rates of interest in major currencies.

d) By providing fixed rate term loans, the bank is assured of 100 % utilisation of its commitments with resultant inereased margin income compared with partially used lines.

SECTION IV

FUTURES

A futures contract is an angreement to buy or sell a standard amount of a specified commodity, currency or financial instrument at a fixed price a fixed future date Futures contracts are traded for a number of delivery dates or months on recognised exchanges by dealers who are members of the exchange.With a small number of exceptions, the exact terms of a futures contract are specific to a particular exchange. Dealers will buy or sell contracts on their own behalf and on behalf of customers usually by " open outcry ". There is a wide variety of futures contracts in many commodities and currencies as well as other financial instruments.

A futures contract, unlike the underlying commodity, currency or financial instrument, is a fungible asset because of the standard terms. While the dealers transact business by open outcry the contract is registered with the exchange's clearing house. The clearing house provides a guarantee of performance of the contract. The clearing house will operate a system of deposits and margins to ensure the integrity of the market. Parties to a futures contract must deposit a fixed amount per contract, know as " initial margin " or " deposit margin " as soon as the contract is made. The contract will then be marked to market each day to calculate the party showing a loss and credited to the house by the party showing a loss and credited to the party showing a gain. A currency futures contract is a futures contract to buy or sell a standard amount of a foreign currency. The underlying rates of exchange will be almost identical to forvard rates.

FX futures contracts are different from the FX forward contracts, since futures involve a different type of contract from forwards. Future contract is a standardized contract, traded on an organized exchange, to buy or sell a fixed quantity of a defined be off-

set (closed out) by taking the other side in the open outcry auction.

The first important thing to realize about foreign currency futures is that when you have a futures contract, you do not own foreign exchange. If you buy a futures contract, and the futures price goes up, you make money. If the futures price goes down, you lose money. If you sell a futures contract and the futures price foes down, you make money. If the futures price goes up, you lose money. Futures trading in countries such as the United States takes place only on fovernment-regulated exchanges. Buyers or sellers of futures contracts place orders through brokers or exchange members. These orders are communicated to the exchange floor and then transferred to a trading qit, where the price for a given number of contracts will be negotiated by open outcry between floor brokers or traders. A futures trade will result in a futures contract with two sides-someone going long at the negotiated price and someone going short at that same price. Thus, if there were no transactions costs, futures trading would other side will lose. The futures price itself will change minute by minute. The futures price is market price that adjusts to bring about equilibrium between the number of short positions. If more people want to go long than want to go short at the current futures price, the futures price will be driven up until an equilibrium between desired short and long positions isreached. If desired short positions are greater than desired long positions at the current futures price, the price will be driven down. The number of two-sided futures bets in existence at any time is called the open interest. A currency futures contract's total dollar value is determined by multiplying the contract amount (i.e. DM 125.000) by the price of the contract. The buyer of a currency futures contract (a "long" position) agrees to pay a dollar price to receive a fixed amount

the other currency on the contract delivery date (if the contract position has not been "offset" by resale). The buyer will profit if the dollar price of the currency rises after the position is established. For example, if a long September Swiss franc position is taken at 4200 and the price then rises to 4220, the long will be credited a profit of $ 250. The contract value has risen from $ 52,500 ($ 4200 X SF 125,000) to $ 52,750 ($ 4220 X SF 125,000). The seller of the contract, the "short" agreed to deliver 125,000 Swiss francs, and will be debited a los of $ 250.

Futures prices are closely related to "spot" (or cash) exchange rates, but there is a difference which is due to different delivery times. This difference-the futures price minus the spot price- is called the "basis". The basis tends toward zero as the delivery day for the futures contract approaches, as a result the futures delivery ultimately becomes a spot delivery. They become perfect substitutes for each other, hence they should have equal value. This principle is very important in a futures market since it is the essence of the use of the futures for "forward pricing" or fixing of cost in advance.

In foreign exchange, the basis reflects the interestrate differential between countries. If there are no restrictions for trade and capital flow, forward rates will vary inversely with the interest rate differential between two countries. For example, if interest rates are 2 percent higher in Canada than in the U.S., the forward price for Canadian dollars should be at a 2 percent discount on an annual basis in terms of U.S. dollars.

Futures contract is a binding agreement to buy or sell an underlying asset at a specified date in the future. A futures contract is really a binding agreement to pay up your bet on a daily basis for every day the market is open and your bet is still in effect. If you stop an FX futures bet prior to the end of trading on the last trade date, you are never obligated to buy or to deliver anything. The way to stop a bet is to reverse whatever you did to g

into it. The size of the bet you take by opening a futures contract is governed by the face amount of the contract. If you have gone long a futures contract at a price P(0), then at the end of the day there will be a positive or negative cash flow to your futures account in the amount of.

(P(1) - P(0)) X Face value of contract,

For example, suppose a £ 25,000 futures contract is opened during Day 1 at a negotiated price of $ 1.4500/£ and the settlement prices at the end of Day 1 and Day 2 are

Opening price	$ 1.4500/£
Settlement price, Day 1	$ 1.4460/£
Settlement price, Day 2	$ 1.4510/£,

then the respective cash flows for long and short positions in a single contract opened at $ 1.4500/£ are

Long	Short
($ 1.4460 / £ - $ 1.4500 / £) X £ 25.000 = - $ 100	+ $ 100
($ 1.4510 / £ - $ 1.4460 / £) X £ 25.000 = + $ 125	- $ 125

contract. On Day 2, the long position gains $ 125 and the short position loses $ 125 on each contract. It is important to realize that these cash flows take place every business day. If you win money, you can withdraw your winnings immediately. If you lose, you pay up immediately. If the money won on a particular day leaves the account balance above the required margin, the surplus cash can be withdrawn immediately. If the money lost leaves the account balance below the required margin, more cash must be added.

The IMM And LIFFE :

The two most important places where FX futures contracts can be traded are at the International Money Market (IMM) of the Chicago Mercantile Exchange and at The London International Financial Futures Exchange (LIFFE). At each exchange FX futures contracts are for standardized foreign currency amounts,terminate at stan-

dardized times (last trade dates), and have minimum allowable price moves (called "ticks") between trades. For most types of futures contracts there are also maximum allowable daily price movements ("limit moves") up or down from the previous day's settlement price. FX futures prices at both the IMM and LIFFE are quoted in American terms-the U.S. dollar price of a unit of foreign exchange. Contracts are traded on a standard three-month cycle of March, June, September, and December. 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 I.S. dollars 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. (8)

Futures trading at the IMM and elsewhere in the United States is refulated by the Commodities Futures Trading Commission (CFTC), a refulatory body created by Congress in 1974. LIFFE is run by the International Commodities Clearing House (ICCH), which is a clearing system owned by the British clearing banks of Barclays, Lloyds Midland, and National Westminster and by Standard Chartered Bank. The clearing houses guarantees both the long and short sides of a futures contract against the risk of default by the opposite party. This guarantee, however, applies only to futures contracts made by the customers of clearing member firms, and then only after transactions have been registered and confirmed by the clearing house and margin on the transactions has been received from clearing members. Futures commission merchants who are not clearing members must have their trades cleared by a clearing member. A customer's order is transmitted to the exchange floor by the futures commis-

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(8) Fitzgerald M. Desmond
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sion merchant, who acts as the customer's agent. There a floor broker-an exchange member who acts as agent for the elearing house-will attempt to complete the trade by open outcry in the trading pit. The trade may be completed either with another floor broker or with a floor trader. Floor traders may take speculative futures positions, or they may act as marketmakers, similar to marketmakers in the interbank FX market. The amount of margin required on an FX futures contract is related to the volatility of price movement of the underlying currency, and hence to the probability distribution of daily losses or gains. Margins are negotiable, and therefore will vary from broker to broker. However, there is a minimum margin for each contract that will hold throughout the market a minimum given by the margin the clearing house charges clearing members. In the United States a distinction is made between initial margin, which is the amount of money that must be deposited when a contract is opened, and maintenance margin, which is the minimum levet to which the margin is allowed to fall (if there are loses after opening the contract) before additional money must be added to the account. If the balance in the account falls below the maintenance level, additional money called variation margin must be added to the account to restore the account balance to the initial margin level. Margin requirements will similarly be altered if general market conditions change. To the extent margin is posted in cash, there is an opportunity cost involved, because the cash could otherwise be held in the form of an interes-bearing asset. However, variation margin must usually be paid in cash. Remember that people with positive cash flows (the winning side of the daily price bets) will generally be withdrawing their cash to put it into interest-bearing accounts (or spend it on something suitable). Hence if the brokerage firm did not require the losers to pay up in cash, the firm would have to pay winners from its own cash holdings.

Futures Contracts Compared To Forward Contracts:

There are a number of differences between a forward contract as used in the interbank market for foreign exchange and a futures contract as traded on exchanges like the IMM and LIFFE:

- The most important difference is the daily cash flows ("marking to market") that take place on a futures contract. In a forward contract, by contrast, no money will change hands until the contract expires. Forward contracts never involve any cash flow prior to maturity. There is potential credit risk in the corporate (If a bank enters into a forward contract (via a swap) with another marketmaking bank, this credit risk is considered small enough for nothing more to be involved in the forvard contract than the verbal agreement on the price. But if a corporation is involved, the corporation's line of credit at the bank will usually be reduced by the amount of the forward contract, provided the corporation has such a line of credit. If the company defaulted on the forward contract and the spot exchange rate had in the meantime moved to the bank's disadvantage.)

- Suppose you buy September British pound futures for $ 1.50 per pound. You have decided to take delivery on the contract, so on the third Wednesday in September you will receive £ 25,000 for which you will have to pay a dollar price determined by the settlement price on the expiration day. During the meantime, the dollar price of the pound may have gone up or it may have gone down. For example, if the price has gone to $ 1.60, you have to pay $ 0.10 more for each pound, if the price had gone to $ 1.40, you would get the pounds at a cheaper price of $ 1.40, but in the meantime you will have lost $ 0.10 per pound on futures because you were long the contract and the price wentdown. In the first case, you earned interest on the $ 0.10/£ positive cash flow, while in the second case you lost interest on the $ 0.10/£ negative cash flow. For example, for a £ 25,000 contract and 12 percent interest for one year, the interest earned would be roughly:

(£ 25,000)($. 05 / £)(.12) = $ 150.

A forward contract would not have earned this amount of interest. In the second case, the negative cash flow on the futures contract would entail a loss of interest. Again, this loss would not be present in a forward contract.

- The real purpose of futures is for hedging and speculation.
- Forward contracts are traded over the counter: banks and brokers can be located anywhere and deal with each other over the phone. FX futures are traded on the market floor of the IMM, LIFFE, the Sydney Futures Exchange, the New Zealand Futures Exchange, the Mid America Commodities Exchange, the New York Cotton Exchange, the Toronto Futures Exchange, and the Singapore International Monetary Exchange (SIMEX).
- Forward contracts are contracts made directly between two parties and there is no secondary market. Futures contracts are netted out through a clearing house, so that the clearing house stands on the other side of every contract cleared through it.
- Forward contracts have no daily price limit. Futures contracts, may have daily price limits set by the exchange (though the IMM has no daily limits on FX futures).
- Forward market is self-regulated. Forward contracts are subject, however, to the ordinary laws of contracts and taxation. In the United States, futures trading is regulated by the Commodity Futures Trading Commission. In the United Kingdom, LIFFE is self-regulated.

Hedging With Futures:

For example, you have accounts receivable denominated in British pounds. There is exchange risk: the dollar value of the accounts receivable will drop if the British pound loses value with respect to the dollar. To hedge this risk, you take out a side bet in the futures market. 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. Because you have an underlying long position in pounds, to offset you should go short pound futures. If

the pound loses value in dollar terms, you will make money on your short futures position, which will offset the loss in value of your accounts receivable. So by hedging you avoid exchange rate loss, but also give up the possibility of exchange rate gain. This is the nature of hedging. Hence risk aversion is one justification for hedging. In order to be hedged perfectly in dollar (or local currency) terms, the value of the futures position must change one-for-one (but with the opposite sign) with the value of the underlying position being hedged. Assuming that the amount of foreign currency involved in your futures bet exactly matches the amount of foreign currency involved 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. To see why, let x represent the change in the spot dollar (or local currency) price (S) of foreign exchange, while y represents the change in the futures price (Z). That is, $x = \Delta S$ and $y = \Delta Z$. Let the total portfolio consist of one unit of cash or spot foreign currency held long that is hedged with one unit of foreign currency futures held short. The change u in the value of the total portfolio can then be represented as

$$u = x - y.$$

As long as $x = y$ (the change in the spot price equals the change in the futures price), we have $u = 0$ (no change in total portfolio value). The same would obviously also be true for a portfolio of arbitrary size, or for a short spot position hedged with a long position in futures. The ability to set up a good hedge depends on finding a futures contract whose price movement has a high degree of correlation with the underlying asset being hedged.

SECTION V

OPTIONS

An option can be defined as a contract that gives to its buyer a right, but not an obligation, to make a purchase or sale in the chosen financial instrument, equity or commodity at an agreed price (exercise price), at any time during a specified period, in consideration of payment of a non-returnable premium.

Option Categories:

Options can be separated into three main categories according to the rights they confer on the buyer:

1. Call Options - it confer the right to purchase the underlying instrument. They are usually bought when the buyer expects the market price to rise sharply.

2. Put Options - it confer the right to sell the underlying instrument. They are usually bought when the buyer expects the market to fall sharply.

3. Double Options (Put and Call Straddle) - it confer the right to buy or sell the underlying instrument. They are most useful when the market direction is uncertain.

Risk hedgers looked for protection, or insurance againest foreign exchange risk, without these restricting obligations. Foreign Currency Options meet this precise need. Because it give the buyer the right, but not the obligation, to buy or sell a fixed amount of foreign currency, at an agreed rate, on or before a specified date. The option buyer must pay a cash amount to the option seller when the contract agreed. If you want the right to buy, then you buy a Call Option, if you want the right to sell STG, then

you buy a STG put option. An exchange rate is accepted when the option contract is agreed, and it is known as the Exercise Price or Strike Price. The final date of the option is called its Expiration Date, and its fixed lifespan is called Expiration Cycle. If an option is to be exercised by the buyer, it must be done on or before the expiration date. After the expiration date the option no longer exists. Is a form insurance policy, and similarly it requires a payment to be made up-front. This payment (The option price) is called Premium. The option seller is also known as the Writer or Grantor.

Options can be used for a wide variety of purposes, the four main uses are set out below.

1. Investments:

   An option may be used to assist in a timely invesment decision, pending the receipt of funds from a deposit or asset sale.

2. Speculative Gains:

   Options can be used to take advantage of an expected sharp move in prices by gearing up profits through trading options with a relatively small outlay and risk to capital.

3. Insurance:

   Protection against an uncertain financial outcome or event can be secured by purchasing an option, in much the same way as a loss of property is protected against the risk of fire damage or theft by conventional insurance.

4. Income:

   The seller of financial options can often increase his income from assets or investments by selling options against those assets without impairing his long term objectives.

An option premium is said to consist of two components, namely the "intrinsic" value and the "time" value. The intrinsic value

is the amount, if any, that could be realised if the option were to be immediately exercised. The difference between the total premium value and the intrinsic value is called the "time" value and represents the expected opportunity gain from favourable price changes over the life of the option. It is important to note that the "time" value decreases in proportion to the square root of the time remaining to expiry.

The price of a currency option is directly related to the underlying futures price, rather than to the current exchange rate. The option price is shaped by the following three factors:

1. Relationship of the strike price of the option to the current underlying futures price.

If the current futures price is higher than a call's strike price, the call is said to be "in-the-money". If the call holder exercises it today, he takes a long futures position at the strike price. The difference between the futures price and the strike price is the amount he will be credited, and is termed the options "intrinsic value". Similarly, if the futures price is lower than the strike price of a put, that put is "in-the-money". The exercise of an in-the-money put results in a sale of the futures at an above-market price. In general, the greater an option's intrinsic value, the higher that option's premium. If the option is "out-of-the-money" (currently has no intrinsic value because the futures price is lower than the call's strike or higher than the put's strike) the more out-of-the-money it is, the lower the option premium.

2. Time

The more time that remains until an option's expiration, the higher the premium tends to be. The longer time period provides more opportunity for the underlying futures price to move to a point where the purchase or sale of the futures at the strike pri-

ce becomes profitable. Therefore, an option with three months remaining until expiration will have a higher price than an option with the same strike price/futures price relationship and with only two months until expiration. The time component of an option's value tends to be largest when the underlying futures contract is trading near the exercise price of the option-that is, when an option is "at-the-money". An option is a wasting asset. As the option approaches its maturity, the time value is only its in-the-money amount.

3. Volatility

The more the underlying futures price tends to fluctuate, the higher the potential profit on the option. Volatility is a measure of the degree of fluctuation in the futures price. If volatility increases, with all else remaining the same, the option price will rise; and if it declines, the option price will fall.

How should an investor choose which call option to purchase ? An option with a longer time until expiration generally will cost more than one with a shorter time until expiration. However, the option with a longer maturity obviously will give the investor more time to be correct in his forecast of market direction and, hence, more time for the option to become profitable.

The investor who anticipates a falling exchange rate, and correspondingly lower futures prices, may purchase puts to realize a profit. Recalling that the purchase of a currency put option carries with it the right to take a short futures position, the value of a put option can be expected to increase with falling prices for the futures contract.

The writer (seller) of a call option receives payment (the premium) in return for the obligation of taking a short position in the futures contract at the exercise price if the option is exercised. If the writer of the option does not have a long position in the futures market, he is called an uncovered (or na-

ked) writer. The principal reason for writing call options, then is to earn the premium. The writer of a call option hopes that, at expiration, the settlement price of the futures contract will be at or below the exercise price of the option. The option will then expire worthless, and the call writer will keep the entire premium. If, on the other hand, the futures price at expiration is above the exercise price of the call option, the call writer will be forced to assume a short position in the futures contract at the strike price. The writer of a call option should keep in mind that the holder may exercise at any time during the life of the option, and exercise becomes more likely if an option has a large intrinsic value and little time value. Therefore in these cases, the call writer who does not wish to take a futures position should consider closing his options position.

As in writing call options, the primary motivation for writing put options is to earn the premium. However, the put writer is subject to substantial risk in order to earn the premium. Because the put writer is obligated to take a long futures position, he hopes that the futures price at expiration will be at or above the exercise price of the put. The put option would then expire worthless, and the writer would keep the entire premium received for the sale of the put. The risk is that the futures price of the put option by an amount exceeding the premium received.

Profitable options strategies can be designed to meet nearly an forecast of market conditions. With the choice of strike price and of buying or writing puts or calls, the degree of exposure to the market can be varied to reflect the relative certainty of a given forecast of market conditions. The trading decision can be refined from an absolute timing decision to one in which the commitment can be limited and quantified.

SECTION VI

OTHER FX MARKET'S PRODUCTS

A/ CURRENCY BORROWINGS

Currency borrowings are closely related to forward contracts. We are due to receive dollars from a customer in 12 months, and our costs are in sterling. let us assume that the interest cost of 12 months Sterling is 5% higher than that of 12 months Eurodollars. In that case we could normally expect to sell the dollars forward for 12 months at a 5% gain against today's spot rate. Alternatively, we could borrow Eurodollars for 12 months, to be repaid out of the receipt from the customer at the end of the 12 months, and this would give us an interest saving 5%. Subject to any tax or accounting complications, we should be adifferent between the two courses of action. For that we have done by borrowing instead of covering forward. is what the bank would have done to cover its own position after buying our dollars forward from us instead.

In practice we may well not be indifferent. Quite apart from any different tax and accounting effects, we might be in surplus cash with no need for borrowings; in that case our saving would be the gap between the rates of interest we can earn on sterling deposits and the Eurodollar rate. Again, if we did have sterling debt, this might be at variable overdraft rates, and not at a fixed rate for the 12 months, and we might have reason to expect that the average cost of overdrafts over the period will fall short of the fixed rate for 12 months. In any case, the forwardpremium is calculated from the Eurosterling rate, which is likely to differ from our domestic sterling cost of funds. But all these reservations have intact the fundamental point that forward cover and currency borrowing are closely related and financially not very different operations.

Currency borrowings can be more flexible as an exposure management device than forward cover; for if market conditions permit, we can borrow for flexible periods, that is, with easy prepayment or rollover conditions, and if we desire, with variable rather than fixed rates of interest. And the limitations on the length of period for which forward cover is available, are often limitations on fixed interest funds. Variable interest rate funds may well be available for much longer periods. Obviously where a currency is not freely traded, a thin market or exchange control regulations may well make that currency unavailable both for forward contracts and for borrowings. The restrictions which this places on both devices are likely to be similar.

Borrowings, however, are more difficult for a company which is close to its borrowing limits because it is already heavily geared; and as we have seen, they are likely to be unattractive to a company so liquid that it does not need to borrow for financial reasons. However, where borrowings are practicable they are an answer to the risk caused by an excess of assets over liabilities in the currency concerned.

For example an American company, Columbia, which has an excess of sterling assets over sterling debt in its consolidated balance sheet. By borrowing an extra STG 10 million= $ 20 million, it can remedy this, provided it immediately converts the newly borrowed sterling into dollars and repays dollar debts. If it kept the STG 10 million sterling as a sterling asset (for example, investing in sterling securities), the mismatch would remain undiminished.

(Columbia (consolidated balance sheet) $ millions before and after STG 10 million sterling drawdown)

	Before	After
Dollar net operating assets	150	150
Sterling net operating assets	50	50
	200	200

Share capital and reserves	130	130
Dollars owed to banks	40	20
Existing sterling debt (STG 15 million)	30	30
New sterling borrowing (STG 10 million)	-	20
	200	200
Net sterling assets	20	nil

It shown by example; after drawdown the total sterling debt is now $50 million, which covers the sterling net operating assets, The sterling exposure is now fully bedged, subject to any tax or accounting effects.

B/ BACK-TO-BACK LOANS AND PARALLEL LOANS

Both of them differ from currency borrowings and the other risk management tools, because they are essentially between two commercial parties, not between a commercial party and a financial institution. Technically one of these deals may be so arranged that a bank intermediates between two commercial parties. This is sometimes done to deal with the credit risk. But in such cases the deal still not come about until two commercial parties are found who have an equal and opposite interest in concluding the deal.

For Example;
English Industries Ltd agrees with Wallaby Industries Ltd of Sydney, New South Wales, that English will lend Wallaby STG 5 million and Wallaby will lend English Aust. $ 10 million for 7 years. This is a back-to-back loan. Alternatively each of them agrees to make the loan to the other's subsidiary in his own (the lender's) country. That is a parallel loan. Thirdly the agreement could be that English will pay to Wallaby STG 5 million and Wallaby Aust $10 million to English now, and that each has an option at some future date to require both payments to be reversed at that same rate of exchange of Aust. $2 = STG1. That would be a currency swap. A swap differs from a forward contract because there is an initial mutual eash payment.

In this case there is the further element that the subsequent reversal of the transaction is merely an option, not a definite commintment. Finally the two parties may agree to make no initial cash exchange, but merely to exchange currencies at maturity at the prearranged exchange rate. This is a bilateral forward contract and differs from other forward contracts because it is between two commercial parties for an unusually long period.

However, the examples which are found in real life show that most of them come about to overcome the problems of exchange controls in one or other of the countries. There are very few examples where a currency hedge was the main motive. Back-to-back and swap deals enable one party to invest outside its own country and the other to finance its local subsidiary without remitting fresh convertible funds into the exchange control net.

C/ WARRANTS

Warrants confer on the holder the right but not the obligation, to purchase or sell a fixed amount of an underlying asset at a fixed price and at a fixed future date. They are similar to options in many respects, but have the following distinguishing characteristics:

Options, particularly traded options, are generally for a shorter term than warrants.

Options usually grant rights over assets which are currently available, For example, the exercise of a traded ICI call option requires the writen of the option to purchase existing shares on the open market to satisfy the contract; it does not lead to the creation of new equity. The exercise of a warrants issued by a company will usually lead to the creation of new equity capital in that company.

In recent years there has been a considerable in crease in the range of Eurubond warrants which are available.Eurobond warrants can be immediately exercisable in which case they can be similar to either European options (exercisable only at one specifie time) or American options (exercisable at any time). They can also have delayed exercise terms where the investor

is prevented from exercising the warrant until a specified date-a European exercise period followed by a period of American exercise.

There are some;

a) Detachable warrants : detachable equity and debt warrants are the most common type of warrant. They are originally issued with a host bond and are immediately detachable. They are traded in the secondary market as separate instruments. These warrants entitle the holder to purchase new equity or debt of the issuer and act as a sweetener to the investor to reduce the cost of debt. These are deaft with further in the debt instruments and equity and equity linked instruments sections.

b) Harmless warrants : are exercisable into debt of the issuer and have a period during their life when exercise will result in a call of an equal amount of the existing debt issue. This limits the outstanding debt of the issuer.

c) Puttable warrant : give the investor the right to put (or sell) the warrant back to the issuer at a fixed price enabling him to limit his risk.

d) Covered wartans : All the above instruments create claims on the issuers of the underlying assets if exercised. Covered warrants, on the other hand, are insued by banks which grant the investor the right to purchase equity or debt in a third party. The investment bank quarantees to the investor that the assets will be made available on exercise of the warrant. The consent of the third party will not necessarily have been obtained by the investment banks.

e) Naked warrants : are issued separately and not as part of the bond issue. They may be exercisable into the debt or equity of the issuer or some other asset (eg shares of another company, currency government securities).

f) Currency/interest rate warrants : do not represent claims on the issuer's own capital. They entitle the holder to acquire a currency at a fixed rale or a fixed interest security (usually goverment securities) at a future date. These warrants are similar to traded options in that they have standardised terms premiums strike prices and expiry periods. In addition, they generally have longer periods to expiry than conventional options.

The issue of a warrant can reduce the costs of a debt issue, both by providing the investor with a "sweetener" and from the proceeds recevied from the warrants.

The issuer can raise additional funds by granting a contingent right which can either be hedged with other instruments or satisfied by an issue of debt or equity in the future.

Warrants are bearer instruments, which gives the investor the advantage of anonymity.

Warrants give investors a high degree of leverage. As with options, the investor limits downside risk to the amount paid for the warrant but his upside. Potential profit following favourable price movements is very large.

Warrants are highty geared instforments, as the profit potential if the warrants move into the money can be a large multiple of the initial capital outlay. This can make warrants very attractive to anvestory as a speculative tool.

Some warrants markets are very liquid enabling the ready realisation of gains.

Warrants are bearer instruments and therefore potential predators could use equity warrants to build up a large undisclosed stake in the enterprise issuing the warrants prior to a takeover bid.

The risks with warrants particularly currency and interest rate warrants may not be easy to hedge.

Disadvantages and risks of investors is the volatility of warrants can cause them to lose value very quickly once out of the money.

SECTION VII

CONCLUSION AND QUTLOOK

The importence of the FX market producets' function incereased after 70's. Along with the prowth of the market the avarege size of transactions has incereased. As the deal size incereases the risks too continue grow for as long as there is no single world currency and for as long as exchange rates float there will be a need for dealing in FX money market in order thet the banks and camponies may profit from FX and interest rates movements and protect their exposure.

Banks are the intermediary in the money system in so far as they accept interest bearing deposits (either demand or time) from customers and then use these deposits to make loans or other deposits with other banks, or to purchase investments. At the same time they are the intermediary in international trade since they enable their financial and commercial eustomers to buy and sell the FX which they reguire. The banks also enable their customers to invest their surplas funds in FX currency deposits with them. The customers and euer banks themself may look for hedging against risks in FX rates fluctations. There are broadly 3 classes of implemests for FX risk management: Avoid risk, hedge it and reduce the task of management. The objectiues of the dealing department are to satisty these needs in a satisfactory manner for both customer and banker. The banks and investors use some tools and products for hedging. They are also useful for making profit. But dealing in the FX money markets is not without risk; Credit risk, transfer risk, operational risk, liquidity risk, exchange control risk etc. Therefore an extreme care is needed in dealing.

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14 SUBAT 1991

SUNUŞ

Para piyasaları, Banka ve Büyük ticari kuruluşların geçici para ihtiyaçlarını karşıladıkları piyasadır. Bu ihtiyaç karşılama, borçlanma şeklinde olabildiği gibi çeşitli para birimlerini birbiriyle değiştirme şeklinde de olabilir. Bu piyasada alınıp satılan para birimlerinin yanı sıra gene belli paraları temsil eden bir takım değerli kağıtlar vardırki bunlara para piyasası araçları denir. Para piyasasının Sermaye Piyasasından farklılığı esas itibariyle burada işlemlerin daha kısa vadeli olmasından kaynaklanmaktadır. Uluslararası Para Piyasası, milli sınırları aşan işlemlerin yapılmasıyla oluşan piyasadır. Burada farklı ülkelere ait para birimlerinin ticareti sözkonusudur. Uluslararası para piyasasına Döviz Piyasasıda diyebiliriz.

Döviz Piyasasında işlemler vadesiz (spot) ve vadeli (Forward) olarak yapılabilirler. Bu alışverişler çeşitli teknikler kullanılarak gerçekleştirilebilir ki bu tekniklere yada usullere; ürün (product) daha isabetli bir deyimle alım-satım yöntemi denir. Bu tez çalışmamızda, bu yöntemlerin nasıl ve hangi amaçlarla kullanıldığı ele alınmaktadır. 70'li yıllarda altın esasına ve sabit kur esasına dayalı Bretton Woods para sistemi çökünce günlük kur dalgalanmaları risk oluşturmaya başladı. Kur riskinden korunmak için ve aynı zamanda kur dalgalanmalarından kazanç sağlamak için bankalarca ve büyük şirketlerce yeni yöntemler geliştirildi. Bunlar; Swaps (değiş-tokuş), Futures (gelecek zaman sözleşmesi), Options (fırsat sözleşmesi), Warrants (kefalet sözleşmesi), Currency Borrowing (döviz borçlanması), Currency Deposits (dövizli teediat), Back-to-Back Loans (karşılıklı borçlanma), Parallel Loans (paralel borçlanma) gibi yöntemlerdir. Döviz alım-satımlarında kullanılan bu yöntemler kur riskinden korunmak için olduğu kadar, yatırım ve kar amaçlarıylada kullanılmaktadır.

BÖLÜM I / DÖVİZ PİYASASININ TANITIMI :

Döviz piyasasının fiziksel bir yerleşimi/yeri olmayıp yeryüzündeki bir çok banka ve aracı kurumun haberleşme ağıyla oluşturduğu, tüm yeryüzüne yayılmış bir piyasadır. Alım-satımcılar gelişmiş haberleşme araçlarıyla anlaşmalarını yaparlar, anlaşmalarının gereği olan ödemeleri; değişik yerlerdeki banka hesapları arasında aktarma yapmak suretiyle ya da muhabirlik ilişkilerinden yararlanarak yerine getirirler. Bu piyasada özel bir yeri olan haberleşme sistemi; SWİFT'tir. (The Society for World wide Interbank Financial Telecomunicshıon) Bu, Belçika'da bulunan, kar amacı gütmeyen, üye bankaların ve kuruluşların katkısıyla işlem gören bir sistem olup yapılan iletişimin kısa ve kesin olabilmesi için belli formüller getirmiştir.

Döviz alım-satımı yapan kuruluşların yoğun olarak bulunduğu bazı merkezler (New York, London, Zurich, Frankfurt, Tokyo, Hongong gibi) piyasanın sürükleyici ve belirleyici odak noktalarını oluşturmaktadırlar.

Döviz ticareti yapanlar aynı zamanda fiyatlarıda (döviz kurlarınıda) belirlerler. Sonuçta döviz kurları bir arz-talep dengesinden kaynaklanmaktadır. Bazı ülkelerde Merkez Bankalarıyla ticari bankalar, günlük görüşmelerle kurları belirlerler. Bu işlem gene piyasa şartları, görüşmeler katılan bankaların almaya yada satmaya hazır oldukları fiyatlar esas alınarak yapılır. Saptanan kurlar belli alt-üst sapmalarla bankaların uygulayacakları kurlara baz alınır.

Dealing diye de adlandırılan kambiyo alış verişleri, hangi döviz cinsinin, ne miktar üzerinden hangi döviz karşılığında, hangi fiyatla (kurla)alındığını veya satıldığını ifade eder. Bu işlemler Bankaların arbitraj servislerinde / Dealing / roomlarında görev yapan Dealer'ler / kambistler tarafından yapılır.

Bankaların Kaynak Yönetimi Birimleri/Treasury Departmentları bünyesinde yer alan bu servislerde, Uluslararası para piyasalarında oluşan döviz fiatlarını ve çeşitli fiyatlardan arz ve talepleri gösteren bilgisayar terminalleri; uzak mesafelerden mesaj alışverişini sağlayanteleprinterler, çek özellikli hesap makinaları gibi teknik donanımda bulunmaktadır. Bu servisler; her işlemden sonra bankanın yeni döviz pozisyonunu belirleyen Döviz Pozisyonu Servisi, yapılan alışverişlerin teyidini sağlayan Kambiyo Muhabirlik Servisi, işlemleri kayıtlara geçiren Kambiyo Muhasebe Servisi gibi yan servislerle desteklenmektedir.

PARA SİSTEMİ

Uluslararası para alışverişinin iyi kavranabilmesi; para birimlerinin kredi değerlerinin ve birbirine karşı değişim oranlarının hangi esaslara göre belirlendiğinin bilinmesini gerektirmektedir. Sonuçta her şeyin arz-talep dengesiyle belirlenmesine rağmen, bazı resmi anlaşmalar ve gayrı resmi kabuller para değerleri üzerinden etkin olmaktadır. 1865 Latin Para Birliğinden başlayan bazı uluslararası anlaşmalarla paraların değerlerine altın standardı gibi bazı esaslar getirilmiştir. Fakat iki büyük dünya savaşı dolayısıyla, ekonomik ürünlerin azalması, savaşın altın karşılığını aşan para emisyonu ile finanse edilmesi ve iki savaş arasındaki ekonomik kriz ülkelerin paralarının değerlerini hızla değiştirdiği gibi yabancı paralara olan ihtiyaçlarının karşılanmasını zorlaştırdı. Bu durumda ülkeler kendi paralarının değerini ve döviz stoklarını korumak için yasal kontrolleri geliştirdiler. Dünya ticareti için kötü olan bu şartlar ikinci savaştan sonra yeni bir uluslararası para sistemi üzerinde anlaşmayı gerektirdi.

Bretten Woods'da yapılan anlaşmayla ülkelerin para birimlerinin değeri dolara, doların değeri de altın standardına bağlandı. Yeni para sisteminin işlerliğini sürdürmesi için ve ülkelerin dış ticaret açıklarının dünya ticaretine ve kendi paralarının değerlerine zararlarını önlemek için yeni tedbirler getirildi. Bu amaçla IMF (The Internatıonal Monetery Fınd) kuruldu. Böylece belirli sabit kurlara dayanan ve tüm paralar için Konvertibilite olanaklarını getiren bir sistem kurulmuş oldu. Bir ons altınla, 35 Dolar arasında değişim değeri kabul edildi. Böylece ülkeler rezerv olarak altın yerine dolar tutabilir ve bunun faizinden yararlanabilir duruma geldiler. Ayrıca, ülkelerin ödeme dengesi bozulmalarının önlenmesi için IMF'le yeni bir kredi sistemi; normal çekme hakkı getirildi. Bretton Woods'u izleyen 1950 EPU (Avrupa Ödeme Birliği) ve 1958 EMA (Avrupa Para Anlaşması) esas itibariyle dünya ticareti ödemelerini kolaylaştıran ve paralara konvertibilite getiren anlaşmalar oldu. Fakat, 70'li yılların başlarında Amerikan ödemeler dengesi açığı, Birleşik devletlerin dış taahhütlerinin altın rezervinin iki katı kadar büyümesi Dolara duyulan güveni ve doların değerini düşürdü. 1971 de dolar develüe edildi. Washingtonda yapılan Smithsonian anlaşmasıyla yeni değişim karları belirlendi. Ne varki artık paraların değerinin ve değişim oranlarının sıkça değişebileceği bunları belirlemenin ve izlemenin en sağlıklı yolunun piyasaların dalgalanmalara bırakılması olduğu anlaşılmış ve Avrupa da uygulanmaya başlanmıştır.

IMF kredi mahiyetindeki normal çekme hakkının yanı sıra ülke para rezervlerinin bir parçası olarak tutulan ve gerektiğinde Merkez Bankalarınca istenilen tür döviz ödemelerinde kullanılmak üzere hazırlanan özel çekme hakkı (SDR) gibi fonksiyonlarıyla uluslararası ticaret ve para değerlerinin korunmasına hizmet veren en önemli kuruluş olarak varlığını sürdürürken Avrupa'da Ekonomik Topluluk esprisinin bir parçası olarak EMS (The Europen Monetery System) Avrupa Para Sistemi oluşturuldu.

Bu sistem kur dalgalanmalarına geniş alt ve üst limitler tanıyordu. Bu yüzden Smithsonian Anlaşması tüzel olarak adlandırılırken bu yılan olarak adlandırılmıştı. Fakat bu sistemde Avrupa Para Birimleri kendi aralarında sabit bir kura göre ayarlanmışlardı. Avrupa paraları için belirli limitlerle sınırlı çapraz kurlar oluşmuştu.

Bu sisteminde fonksiyonel sonucu EDU (Avrupa Para Birimi/The European Curency Unit) şeklinde 9 Avrupalı paranın belli oranlarda bir sepet oluşturmasıyla ortaya çıkması olmuştur.

BÖLÜM II/ DÖVİZ TİCARETİ MEKANİZMASI :

Uluslararası tüm ödeme araçları döviz kapsamına girmektedir. Yalnız bunun içinden nakit para birimlerini efektif olarak ayrıca bir alt tanımla belirtiyoruz.

Dövizler eğer sahipleri tarafından kolayca bir diğeriyle değiştirilebiliyorlarsa bu onların konvertible olduğunu göstermektedir.

Ülkeler paralarının değerini korumak, döviz stoklarını korumak gibi düşüncelerle uluslararası ticaret ve para hareketlerine bazı yasal kontroller getirirler. Uluslararası işlemler bu yasal çerçeve içinde yapılır. Türkiyede 80'li yıllarda yapılan çeşitli değişikliklerle kambiyo işlemlerine geniş bir serbestlik getirilmiştir. Hatta çeşitli aşamalarla yapılan düzenlemeler sonucu ₺. konvertible ilan edilmiştir. Fakat konvertibilite fiilen bir kabul görme olayıdır. Mevcut yasal çerçeve; üzerinde yapılan değişikliklerle 1567 sayılı TPKK (Türk Parasının Kıymetini Koruma) Yasası ve 32 sayılı Bakanlar Kurulu Kararı ile buna bağlı HDTM nın 32/A genelgesiyle TCMM nın 1-A ve süregelen tebliğleridir. Hepside 1989 tarihlidir.

Bankalar esas itibariyle dış ticaret yapan müşterilerinin ihtiyaç duydukları para birimlerini bulmak için döviz ticareti yaparlar. Bu ticarete Dealing denilmektedir. Dealing işlemleri; a) Peşin/Spot veya b) Vadeli/Forwart olabilir. c) Bir diğer işlem tarzıda Swap olabilir.

A/ SPOT İŞLEMLER : 3 e ayrılır;

1- O/N Overnight Operations : İşlem bugün yapılır. Kur ve miktar bugün belirlenir, dövizler yarın sabah (bu gece geçtikten sonra) hesaba borç veya alacak geçer.

2- Spot Operations : İşler bugün yapılır, valör 2 işgünü sonrasına verilir. Yani dövizlerin hesaplara geçmesi 2 işgünü sonra olur. Pratikte 7 gün sonraki valörle yapılan spot işlemlere de rastlanmaktadır.

3- TOM/NEXT Tomorrow/Next Operations; işlem bugün yapılır. Dövizler hesaba yarından sonraki gün geçer.

Döviz işlemlerinin yapılması için öncelikle dövizlerin birbirine dönüşüm oranlarının yani birbirine karşı fiyatlarının ve yaygın deyimiyle kurların belirlenmiş olması gerekmektedir. Kurlar tüm paraların belli bir paraya karşı değerini gösterecek şekilde yapılır. Şöyleki; a) Ya tüm paraların fiyatı yerel para ile belirlenir. (1 SRG = 6.068.- ₺., 1 $ = 3.190., ₺. gibi) bu durumda direk/Amerikan/enserten kur kotasyonu sözkonusudur. b) yada yerel para biriminin fiyatı diğer paralarla ifade edilir. (1 $ = 2.2 DEM , 1 $ = 0.645 SRG gibi) Bu durumda endirek/Avrupa/serten kur kotasyonu söz konusudur.

Ülkemizde ve uluslararası para piyasasında endirek/serten metod kullanılır, ancak esas para birimi olarak $ alınır.

Tüm işlemler alış ve satış şeklinde 2 fiyat içerir.Ve doğal olarak 2 ayrı para sözkonusudur. Örneğin; $ / DEM 2.3697 / 2.3725 şeklindeki bir kur verildiğinde küçük rakam alış, büyük rakam satış kurudur. Arada bir kur marjı vardır.

Çapraz kurların hesaplanması : aynı esas paraya göre alış ve satışı verilen iki paranın birbiri ile değişim kurunu alım veya satım için ayrı ayrı bulunabilir.

Örneğin; $ / DEM 2.3697 - 2.3725
STG / $ 1.5525 - 1.5535 kur kotasyonundan
STG / DEM çapraz kurunu bulmak için Sterling'in Mark'a karşı alış kurunu bulmamız gerekmektedir. Bu da şöyle yapılır;
(DEM 2.3697/$) . ($ 1.5525/STG) = DEM 3.6789/STG bulunur.

Örneğin; 1.8379 DEM = 1 $
1 $ = 1.5484 SFR Ortalama kur kotasyonundan
? SFR = 1 DEM çapraz kurunu bulmak için
zincirleme orantı kullanırız.

$$1 \text{ DEM} = \frac{1 \times 1584 \times 1}{1.8379.1} = 0.8424 \text{ SFR}$$

bulunur.

Spot kurların değişmesiyle bankaların Döviz Pozisyonları daha karlı veya daha zararlı duruma geçebilir. Şöyleki; Bankanın mevcut ve alacaklarını oluşturan paraların değer kazanması kar, taahhüt ve borçlarını oluşturan paraların değer kazanması zarar getirecektir.

Bankaların pozisyonları başabaş (Squere), uzun (long) ve kısa (short) olabilir.

Spot alış-verişlerde kar ; Ya değişik piyasalarda zaman zaman yakalanabilecek aynı paraların farklı kurlarından yararlanmak yada değeri yükselen paralarda uzun pozisyon oluşturup bundan yararlanmak şeklinde sağlanabilir. Bütün sorun piyasaları iyi izlemek ve günlük kur trendlerini iyi bilmektir.

B/ FORWARD (VADELİ) İŞLEMLER : Burada döviz belli bir vade itibariyle hesaba geçmek üzere alınmakta, karşılığını teşkil eden dövizde aynı vadede ödenmektedir. İleri bir tarihte gerçekleşecek bir alış-verişin kurları bugünden saptandığı için risk daha büyüktür. Forward kurların belirlenmesi alış-veriş konusu paraların değerleri hakkında bir tahmin mahiyetindedir. Paraların değerlerindeki artış veya düşüşün nedeni; ülkelerindeki enflasyon, göstergesi ise faiz fiyatlarıdır. Bir paranın gelecekteki değeri faiz oranı ile ters orantılıdır. İki paranın belli bir süredeki faiz fiyatları arasındaki fark o süre sonunda faizi yüksek olan para için iskonto, faizi düşük olan para içinde primdir. Yani paraların forward fiyatları, spot kurlarına primin eklenmesi veya spot kurlarından iskontonun düşülmesiyle bulunur.

Forward işlemlerde vade, 2 gün - belli bir süre şeklinde olup 5 yıla kadar uzayabilir. Paraların alış-satış fiyat farkları ise spot işlemlere göre daha fazla olup, vade uzadıkça kar marjı da o oranda artar. Böylece yanılgılardan doğacak risk azalmış olur.

Vadeli işlemler deyimi geniş kapsamlı olup Swap ve Outright işlemleri'de esası itibariyle kapsamaktadır.

Vadeli işlemler sayesinde ithalatçılar ve ihracatçılar ileri bir tarihte ödeyecekleri veya elde edecekleri dövizleri şimdiden belli kurlara bağlayarak veya istedikleri paraya çevirip kullanarak zamanın getirebileceği belirsiz kur risklerinden korunabilirler.

Vadeli işlem kurlarını hesaplamak çok kolaydır. Bunun için klasik faiz formülü (F= AxNxT / 36000) kullanılır.Kapital yerine Spot Kuru, faiz oranı yerine de iki paranın faiz oranlarının farkı kullanılır.

Örneğin; $ / DEM için 3 aylık vadeli işlem kurunu bulalım. Bu aynı zamanda Swap oranıdır.

Veriler : $ / DEM Spot Kuru : 1.8288-1.8471
$ faizi 3 aylık : 6.6875
DEM faizi 3 aylık : 4.1250
Faiz Farkı : 2.5625

$$F = \frac{1.8288 \times 89 \text{ gün} \times 2.5625}{36000} = 0.0115 = 115 \text{ puan}$$

Bu 115 puan faiz oranı yüksek $ için iskonto, düşük DEM için primdir. Çünkü, paraların gücü faiz oranlarıyla ters orantılıdır.

Böyle bir forward kur kullanarak korunmanın % kaç maliyetli bir korunma olduğu aşağıdaki formülle bulunabilir.

$$\text{Korunma Maliyeti (\%)} = \frac{\text{Swap Farkı (Örn.115)} \times 360}{n \times \text{Spot Kur} \times 100}$$

Forward işlemlerin karlılığı veya maliyeti paraların belli vadelerde sağlıyacağı faizlerle kıyaslanarak saptanabilir.

Ayrıca vadeli işlemlerin spekülatif kullanımı için özellikle ABD'de formüle edilmiş vadeli işlem sözleşmeleri hazırlanmış ve para piyasası sunulmuştur. Bunlar farklı özellikleri olan vadeli işlem sözleşmeleridir.

Vadeli döviz işlemlerine ilginç bir örnek outriqhts işlemlerdir. Bunlar tek yönlü ve vadeli bir işlemdir. Nakit fon gerektirmeden ileri bir vade için girişilen bir alım-satım olması dolayısıyla spekülatif amaçla kullanılmaya çok uygundur. Spekülatör prim yapacağını umduğu bir parayı, başka zayıf bir para karşılığında forward olarak satın alır, tahmini doğru çıkarsa vade günündeki spot değerinin altında bu dövizi elde etmiş olur, o günkü spot fiyattan satarak kar eder.

BÖLÜM III / SWAP

Uluslararası para piyasalarından çok sermaye piyasalarında giderek yaygınlaşan bir yeniliktir. Swap, değiş-tokuş yapmak anlamına gelmektedir. Özellikle büyük şirketlerin değişen mali koşullardan yararlanmalarına veya farklı para birimlerine olan ihtiyaçlarını kolayca karşılamalarına yaramaktadır. Esas olarak iki tarafın para birimlerini veya borçlarını veya yatırım gelirlerini birbiriyle değiştirmelerine yarayan anlaşmalardır.

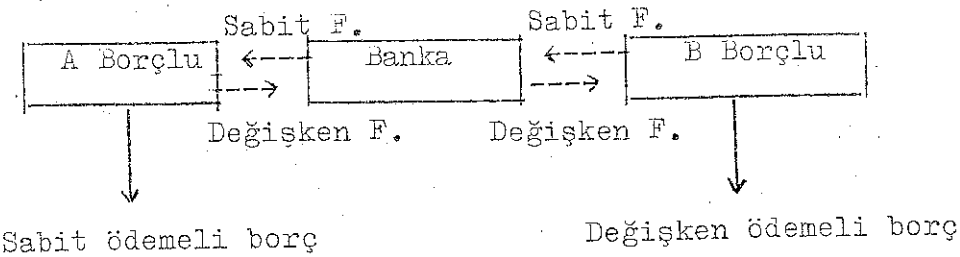
Değişim konularına göre yapıları ve tipleri farklılaşan swap türlerinin başlıcaları aşağıda açıklanmıştır.

a) Faiz Swap :

Bu uygulamada iki ayrı borçlu eş tutardaki borçlarının faiz ödemelerini birbiriyle değiştirmektedirler. Böylece faiz ödemelerinin niteliği değişince borcun yapısı değişmiş olmakta, her iki tarafta kendine daha avantajlı koşullar sağlamaktadır.

Kredi itibarı düşük olan borçlu diğerine bir miktar prim ödemekte ama borç ödemelerini sabit hale getirmekte buna karşılık kredibilitesi yüksek borçlu hem diğerinden aldığı primle faiz yükünü azaltmakta hemde değişken faiz ile portföyüne esneklik kazandırmış olmaktadır.

Örnek;



A borçlu % 10 ile sabit faizli kredi LİBOR + 1 puanla değişken faizli kredi kullanabilmekte; B borçlu ise % 13 ile sabit, LİBOR + 2 ile değişken faizli kredi alabilmektedir. A'nın B ye üstünlüğü sabit faizde 3, değişken faizde 1 puan ölçüsündedir.

Önce; herbiri kendine uygun krediyi alırlar. Sonra; aracı banka vasıtasıyla örneğin 6 ayda bir yapacakları faiz ödemelerini birbiriyle değiştiren sözleşmeyi yaparlar. Bunun için B, A'ya % 2 prim ödesin. Bu durumda; A'nın değişken faizli kredi maliyeti sadece LİBOR düzeyinde kalmakta birim sabit faizli kredi maliyeti % 12 düzeyine inmektedir.

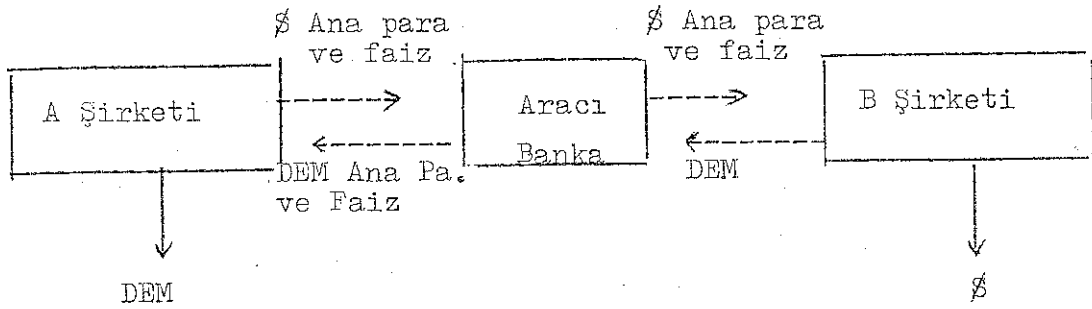
b) Para Swapı :

Bu deyim Döviz Piyasasında başka, Sermaye Piyasasında başka bir yöntemi ifade ettiği için bazen karışıklık yaratmaktadır. Döviz piyasasında para swap'ı; Spot alıp, vadeli satmak veya spot satıp vadeli almak şeklinde bir vadesiz, bir vadeli iki para alışverişinden oluşan bir kombinasyondur. Yani swap burada, bir paranın başka bir para ile aynı gün içinde değişimidir. Ancak, ilerdeki bir günde ters bir işlemle satılan para geri alınır. Böylece swap bir para cinsine duyulan kısa vadeli bir ihtiyacı karşılamak için kullanılan bir yöntem olmaktadır. Bazanda kar veya korunma amacıyla kullanılır. Esas itibariyle zayıf parayı spot alıp faizinden yararlanmak amacıyla kuvvetli yani prim yapan paraya karşı vadeli satmak üzere kullanılması rasyoneldir.

Sermaye Piyasasında ise, para swapı iki ayrı borçlunun farklı para birimlerinden borçlarını veya nakitlerini faiz yüklemeleriyle birlikte belli bir süre için birbirlerine devretmeleridir.

Sürenin sonunda baştan belli kurdan ana paralar iade edilecektir.

Çalışma mekanizmasını örnek olarak bir şekilde gösterirsek;



Para swapı faiz ödemelerinin sabit veya değişken olmasına göre çeşitlenir; Sabitten sabite, sabitten değişkene vb. gibi.

c) Aktif Kıymet Swapı :

Burada değişim konusu yapılan şey para veya faiz yerine, faiz veya gelir sağlayan menkul kıymetlerdir. Belli bir süre sonra geri alınmak üzere değiştirilmektedirler.

Swap işlemlerinde risk :

Esas itibariyle bir risk yönetim aracı olmasına rağmen swap işlemleride bazı riskler doğurabilmektedir. Bunlardan; a) Kredi riski aradaki banka tarafından yüklenilen bir risktir. b) Pozisyon riski ise faiz oranlarının ve değişim oranlarının zamanla göstereceği yeni rakamlarla başta belirlenen rakamların olumsuz farklarının vereceği zarar olacaktır. Ayrıca Bankaların avantajları;
Swap işlemleriBankalar bilançolarını etkileyen ve etkilemeyen türden avantajlar sağlamaktadır. Şöyleki; aktiflerinden herhangi bir şey kullanmadan gelir sağlamaktadırlar. Büyük müşterilerin dönemsel ihtiyaçları banka imkanlarını zorlamadan karşılanabilmektedir.

BÖLÜM IV / FUTUR SÖZLEŞME SENETLERİ :

Bunlar belli dövizleri temsil eden standardize edilmiş menkul kıymetlerdir. Açık arttırmayla borsada alım-satım konusu yapılırlar. Belli miktarlarda ve belli vadeler (Mart, Haziran, Eylül, Aralık şeklinde yıl içinde 3 aylık dökümler) için düzenlenmişlerdir. Bu standart özellikleri dolayısıyla ve belli borsalarda işlem görmeleri dolayısıyla vadeli döviz alım-satımı işlemlerinden ayrılırlar.

Futur Senet alan bir kimse döviz kurunun yükselmesi durumunda kar, düşmesi durumunda zarar eder. Bir müşterek bahis biletine benzetilebilir bu yüzden. Vade başında Po fiyatı ödeyerek alınan bir Futur Sözleşme Senedi, izleyen günler, hangi döviz üzerine düzenlenmişse o dövizin kur değişimine göre alan kimsenin pozisyonunu uzun veya kısa duruma dönüştürecektir. Bu pozisyon değişikliği her günkü duruma göre olumlu veya olumsuz olabilecektir.

Futur sözleşme senetlerinin alınıp satıldığı başlıca iki piyasa vardır. Bunlardan birisi Chicago Ticaret Bankasındaki IMM (International Money Market/Uluslararası Para Piyasası) diğeri Londra Uluslararası Mali Futur Borsası LIFFE (The London International Financial Futures Exchange) dir. Buralarda Brokerler vasıtasıyla belli komisyonlar ödenerek alım-satımları yapılır.

Forward işlemlerle Futur Sözleşme İşlemleri arasında farklar;

- Futurlerde senedin değer kazanıp yitirmesine göre günlük nakit hareketleri sözkonusudur. Oysaki vadeli işlemler vade dolduncaya kadar hareketsizdirler.
- Günlük para hareketlerinin oluşturacağı + veya - fonlara faiz uygulandığından ödemeler veya tahsilatlar yapılacağı kadar senedin değerinin yanı sıra nakit hareketin faizi itibariylede faiz kazancı veya kaybı sözkonusu olacaktır.

- Futurlar borsada işlem gördüğü halde Forward işlemler fiziksel pazar dışında haberleşmeyle alınıp-satılabilir.
- Forward işlemler için günlük fiyat dalgalanmalarında limit yoktur. Oysaki futur işlemlerinde borsanın limitleri sözkonusudur.
- Forward işlemler genel yasal çerçeve içinde yürütülürler. Oysaki futur işlemleri özel kurallara bağlıdır.

Futur sözleşme senetleriyle kur riskinden korunma ;

Bu korunmanın nasıl gerçekleştirildiğini bir örnekle açıklayabiliriz. Eğer bir bankada STG hesabımız varsa, Sterlingin değer yitirmesine karşılık futur piyasasında Sterling için bizi kısa duruma düşürecek buna karşılık örneğin Dolar'a yatırım yapmamızı sağlayacak bir sözleşme senedi alarak bir taraftan kaybetmemiz halinde öbür taraftan kazanacağımızdan dalgalanmalardan etkilenmeyiz. Yani mevcut dövizimizin aksine bir müşterek bahse girmiş oluruz. Dövizimizdeki değişikliğe (x), futur fiyatındaki değişikliğe (y) pozisyonumuzdaki değişikliklere (u) dersek; $u = x - y$ olacaktır.

BÖLÜM V / OPSİYONLAR :

Opsiyonlar, satın alanlara belli bir malı (konumuzda döviz) belli bir tarihe kadar, belli bir fiyattan satma veya alma hakkını veren fakat herhangi bir yükümlülük getirmeyen sözleşmelerdir.

Sağladıkları haklara göre 3 türe ayrılırlar;

1- Satınalma opsiyonları : Bu tür opsiyonlar belli bir tarihe kadar, belli bir dövizi, belli bir fiyattan satın alma hakkı vermektedir. Eğer döviz fiyatları hızlı yükselme sürecine girmişse böyle bir opsiyon almak yararlı olur. Çünkü, piyasa fiyatının altında bir dövizi almak fırsatı doğabilecektir.

2- Satma opsiyonları : Bu tür opsiyonlarda belli bir tarihe kadar, belli bir dövizi, belli bir fiyata satma hakkı vermektir. Özellikle dövizlerin değer kaybettiği süreçlerde bu opsiyon eldeki dövizin alt fiyatı için bir sınır garanti ettiği için yararlıdır.

3- Çift yönlü opsiyonlar : Hem satınalma, hem satma hakkı tanıdığı için çok yararlıdır.

Opsiyonlar bir sigorta poliçesi gibi işlev görürler. Opsiyonu çıkaran kuruluşun kazancı satışlarda her belge üzerinden olduğu ücrettir. Çok değişik sebeplerle kullanılırlar:

a) Yatırım amacıyla kullanım,
b) Spekülatif kazanç amacıyla kullanım,
c) Sigorta amacıyla kullanım,
d) Gelir sağlamak amacıyla kullanım.

Opsiyonların ücreti üzerinde yazılı fiyat olmakla beraber birde zaman değerine sahiptir. Vadesi yaklaştıkça döviz kurlarının trendine göre artan yada azalan bir değere sahip olacaktır. Opsiyonların fiyatları esas itibariyle ilgili oldukları döviz biriminin kur trendine bağlıdır.

Ayrıca, alternatif ürün olan futur sözleşmelerinin durumuylada doğal olarak bağlantılı olacaktır. Özellikle zaman faktörü fiyat belirlemede önemlidir. Çünkü opsiyonun vadesine yakınlık ve döviz kurlarının dalgalanması arasında ilişkiler fiyat için belirleyici bir kompozisyon oluşturacaktır.

Hem opsiyon çıkaranlar, hem kullananlar için karlı strateji piyasa koşullarının iyi tahmin edilmesi sayesinde oluşturulabilir.

BÖLÜM VI / DİĞER DÖVİZ PİYASASI UYGULAMA YÖNTEMLERİ :

A/ DÖVİZ BORÇLANMALARI: Bu işlem forward işlemlere çok benzemektedir. Örneğin 12 ay sonraya bir müşterimizden faizli $ alacağımız sözkonusu olacaksa ve Sterling daha düşük faizli bir para ise yıl sonunda alacağımızla kapatmak üzere bir başka yere Sterlingle borçlanmak daha rasyonel olacaktır.

Ancak, bu yola gitmeden önce forward kurlarının daha ucuza gelip gelmeyeceğinin kontrol edilmesi, ayrıca borçlanma imkanlarının da bulunması gerekir.

B/ KARŞILIKLI VE PARARLEL BORÇLANMA : Bu işlemler diğer yöntemlerden farklıdır. Çünkü, olay iki şirket arasında cereyan etmekte olup, bankalar devre dışı kalmaktadır. Örneğin İngilteredeki bir şirketle Avusturalyadaki bir şirket birbirlerine borç veriyorlar. Bu karşılıklı borçlanmadır. Ayrıca, herbiri kendi ülkesinde faaliyet gösteren diğerinin yan kuruluşuna borç veriyor; Bu da paralel borçlanmadır.

Bu uygulamayla özellikle yerel para birimine duyulan ihtiyaçlar pratik bir şekilde çözülmekte ve kur riski korunması sağlanmaktadır.

C/ VARANT : Bunlarda tıpkı opsiyonlar gibi sahiplerine yükümlülük getirmeden hak sağlayan belgelerdir. Temel ayırıcı özellikleri daha uzun vadeli alım veya satım hakkı sağlamalarıdır.

Garanti altına alınan menkul kıymetle birlikte satılan veya çıkaran firma tarafından belirli fiyatla geri alınabilen türleri vardır.

BÖLÜM VII / SONUÇ :

Döviz piyasa işlemlerinin önemi 70'li yıllardan başlayarak giderek artmaktadır. Piyasanın büyümesiyle birlikte işlem boyutları da büyümekte; bunlara paralel olarak risklerde artmaktadır. Kur dalgalanmaları devam ettikçe banka ve firmaların hem kar etmeleri, hem döviz varlıklarını korumaları için döviz işlemlerine ihtiyaç duyulacaktır.

Bankalar dövizli mevduat toplayıp kredi veren; uluslararası ticarete aracılık eden, müşterilerinin ve kendilerinin ihtiyacı olan dövizleri alıp satan kuruluşlardır. Dolayısıyla kur dalgalanmalarından korunmanın çaresine bakmak zorundadırlar. Döviz kur riski konusunda üç tane önemli aktivite sözkonusu olabilir; Riski önlemek, riskten korunmak ve risk yönetimini kolaylaştırmak. Bunlar Bankaların dealing bölümlerinin görevi ve amacıdır.

Bankalar ve şirketler riskten korunmak ve/veya kar etmek için bir takım araç ve yöntemler kullanarak döviz alım-satımı yaparlar. Fakat döviz piyasası işlemlerinde de; kredi riski, transfer riski, operasyon riski, likidite riski ve yasal sınırlamalar gibi bazı riskler vardır. Bunlarada dikkat etmek gerekir.