

THE BUYING AND SELLING OF FOREIGN EXCHANGE

INTRODUCTION

The expansion of international trade and the related development of the international movement of capital has been and will continue to be the basis for dealing in foreign exchange.

For example, the purchase of some Japanese machinery priced in yen by a New Zealand importer requires the New Zealand buyer to change his New Zealand dollars into yen to complete the transaction. Similarly, a New Zealand organisation which raises development capital overseas to finance a project in New Zealand will wish to sell the proceeds of the loan for New Zealand dollars initially. Ultimately they will have to repurchase the foreign currency with local currency to service and repay the debt.

The trading banks with their international correspondent relationships are the main intermediaries between foreign exchange supply and demand. The major objective of a bank's foreign exchange department is to enable its customers to convert assets held in one currency into funds of another currency. This conversion operation can be either a 'spot' transaction i.e. value within two business days to allow time for cables to be dispatched and actioned, or a 'forward' transaction which is any transaction settled later than two business days. The first section describes the settlement process. It is couched in terms of spot transactions but the settlement process is the same for forward transactions also. The second part of the article discusses the distinct characteristics of the forward exchange market.

THE SPOT MARKET

(i) Description:

The New Zealand foreign exchange spot market is operated on a wholesale/retail basis with the Reserve Bank acting as the wholesale seller and buyer of United States dollars to and from the trading banks at rates of exchange determined each day and fixed for that day. The Reserve Bank quotes a price only for US dollars but this set price for United States dollars enables the trading banks to deal also on behalf of their customers in other foreign currencies. They can immediately ascertain the New Zealand dollar value of those currencies by combining the quoted international market value of that currency, say the yen, against the United States dollar with the Reserve Bank daily value of the New Zealand dollar against the United States dollar.

(ii) Methods Used:

There are two methods of transferring funds internationally and these are by telegraphic transfer and mail transfer:

Telegraphic transfer: a purchase or sale of foreign currency by telegraphic transfer (T.T.) is, as implied, done on the basis of immediate delivery arranged by cable. A New Zealand bank which has sold US dollars will cable its correspondent in the USA with instructions to make a payment in the USA in accordance with the purchaser's instructions.

In the case of an arrangement to transfer funds to New Zealand, a New Zealand exporter will instruct the other party, say a UK importer, to pay pounds sterling to an English bank for the credit of the exporter's New Zealand bankers. On receipt of the funds, the English bank informs the New Zealand bank by telex and the New Zealand bank immediately converts the sterling into NZ dollars at its T.T. buying rate and pays that amount to the exporter.

Mail transfer: instructions relating to an overseas receipt or payment by mail transfer, (including travellers cheques, bank drafts and cheques etc.) are effected by mail and not by cable. There is an obvious delay compared with telegraphic transfers. An interest factor is incorporated into the T.T. buying rate therefore to make allowance for the period that a bank will be out of funds i.e. until the cashed traveller's cheque is returned to the country of origin for collection. In other words, when cashing a foreign currency into New Zealand dollars using its T.T. buying rate for the transaction. However, it will not receive the foreign currency in question until the traveller's cheque has been posted to its correspondent in the country of origin and collection effected on its behalf. Accordingly, the banks deduct from the T.T. value, interest at current rates for a standard number of days depending on the country of origin e.g. Australia, U.S.A. or U.K. For administrative ease, the standard interest factor is incorporated into each bank's T.T. buying rates at the beginning of each day and this adjusted rate is posted as the 'On Demand Airmail Buying' rate. Thus, one quick conversion calculation can be undertaken on request, although some other minor administrative charge may also be levied.

In the case of a sale of foreign currency with payment instructions by way of mail transfer, a bank uses its unadjusted T.T. selling rate. In these circumstances, the bank will have received local currency on the day of the transaction. Whilst it must take action to ensure foreign funds will be available to meet outstanding mail transfers, such as issued travellers cheques, there will obviously be a float period during which time the bank can utilise those committed funds.

(iii) Foreign Banknotes and Coin:

It is not common for the banks to deal in large amounts of foreign notes and coin. The banks keep a supply of notes, particularly \$A, \$US and sterling, to meet requests of intending travellers who wish to have some ready cash available on arrival in a foreign country.

The banks are reluctant to maintain excessive quantities and varieties of foreign notes and coins in New Zealand because such holdings represent uninvested funds. Thus, when buying notes the banks' note buying rate, although it also is a function of the T.T. buying rate, is less favourable to the seller than other rates because the bank will make allowance for likely expenses in packaging, insuring and returning the currency to the country of origin.

It is worth emphasising that except for the foreign banknotes and coin carried by tourists, foreign currency never leaves the country of origin (US dollars do not leave the USA and deutschmarks do not leave West

Germany). The so-called transfer of funds is effected by a series of book entries with the banks involved crediting or debiting their correspondent's current accounts with each other depending on the transaction.

(iv) **An example:**

The following is a simplified description of the sequential steps a bank would adopt to purchase a significant amount of deutschmarks (DM) for a New Zealand customer. In the case of sales of small lots the bank would take a position on the eventual price it would acquire DM's for by agreeing to sell at a fixed price and eventually collating all small lots into one reasonable dealing lot.

1. The bank knows the price at which it can purchase \$US from the Reserve Bank for \$NZ. This price is determined daily and is fixed for that day.
2. The bank will contact the foreign exchange dealers of a bank in, say, Singapore by telex.

On request, the Singapore dealer will state the price at which he is prepared to sell D.Ms. and purchase \$U.S. This rate is subject to continuous change depending on supply and demand and the New Zealand bank has to decide immediately whether it accepts the price or not.

3. The cost of the D.Ms. in terms of \$N.Z. is known to the bank by crossing the Reserve Bank's known \$U.S./\$N.Z. price with the Singapore dealers quoted D.M./\$U.S. price. By adding its margin the New Zealand bank can inform its New Zealand customer of the cost to him of the required D.Ms.
4. If the Singapore dealer's quote is accepted, the New Zealand bank will instruct the dealer to pay the D.Ms. to its account with its West German correspondent bank. The New Zealand bank will subsequently instruct its West German correspondent to make various D.M. payments to other West German bank accounts in accordance with instructions from all its customers.
5. The Singapore dealer will simultaneously instruct the New Zealand bank to pay the \$U.S. he has purchased to a bank in the U.S.A. for the credit of the dealer's account. The dealer will also subsequently instruct its West German correspondent to pay the D.Ms. it has just sold, in accordance with the New Zealand banks instructions.
6. At the end of its trading day the New Zealand bank will purchase any \$U.S. it requires from the Reserve Bank and give instructions to pay those \$U.S. to one of its U.S.A. bank accounts. An instruction will also be sent to the correspondent U.S.A. bank telling it to pay out \$U.S. in accordance with various instructions accumulated during the day, including the Singapore dealer's instructions.

(v) **Forms of Transactions:**

As stated earlier, the prime objective of a bank's international department is to enable its customers to convert assets held in one currency into funds of another currency. The major source of the foreign exchange purchased by the banks is export proceeds and there are basically four methods by which an exporter may receive payment.

1. A cash payment in advance, but this would be rare.
2. Under a bill of exchange drawn at sight with shipping documents being delivered to the foreign importer by

a foreign correspondent bank on payment of the bill. The foreign bank receiving payment on behalf of its New Zealand correspondent would inform the New Zealand bank by telex. The New Zealand bank would pay the New Zealand exporter. As a consequence the exporter would have increased his bank deposit in New Zealand (or reduced his overdraft) and the New Zealand bank would have increased its net overseas assets.

3. Under a bill of exchange drawn payable so many days after sight. The exporter will ask his New Zealand bankers to arrange for one of its foreign correspondents to arrange 'acceptance' of the bill by the importer and to deliver the shipping documents only after acceptance.

The exporter is extending credit to the foreign importer until the bills are paid. Finance may be provided from the exporter's own resources or by the exporter arranging to discount or borrow against the security of his export bill.

A bill drawn payable after sight is sometimes called a 'usance' bill and a bank will discount a usance bill for a customer using a usance rate of exchange. A usance rate is once again a bank's T.T. buying rate adjusted for the time it takes to mail the bill to a foreign correspondent bank (mail transfer) plus the number of days credit extended by the bill. e.g. 90 days after sight.

On maturity of a usance bill, the foreign correspondent bank will arrange collection of the proceeds and inform the New Zealand bank accordingly. The bank, having paid out the exporter the discounted value earlier, will record the receipt as proceeds of a matured investment.

The currency in which an export bill is expressed will be determined by the parties when the commercial contract is entered into. If it is the local currency of the importer then the New Zealand bank will convert that amount into New Zealand dollars on receipt. If, however, the bill is expressed in \$N.Z., then the foreign importer will ask his bankers to purchase the \$N.Z. against payment in, say, \$U.S. This payment will be credited to the U.S.A. bank account of the New Zealand bank which sells it the \$N.Z.

If the bill is expressed in the currency of a third country, then the importer will arrange for his bank to fund a New Zealand bank account in that country. Thus, whether the export bill is expressed in foreign currency or New Zealand currency, it is always foreign currency (or a reduction in foreign liabilities) which accrues to the official reserves.

4. Under a documentary letter of credit. A letter of credit is a means whereby an exporter can have a foreign importer substitute the credit rating of a bank or other financial institution for the credit rating of that importer. In its simplest form a traveller's cheque is a type of letter of credit.

A general description of a letter of credit is that it is an instrument in writing from an importer's bank to an exporter's bank authorising the exporter's bank to make payments to the exporter provided the precisely defined terms and conditions of the letter are complied with. Subject to this compliance the issuing bank also guarantees the exporter's bank reimbursement.

Many bills of exchange negotiated by New Zealand banks are drawn under documentary letters of credit. There are also various types of letters of credit with varying degrees of security for the beneficiary

The procedures adopted for payments by an importer would be the converse of the above description of methods of payment for exports.

(iv) Cover Transactions

Like other holders of foreign exchange, the banks are faced with the risk of a change in the exchange rate for currencies they have purchased, but not yet sold (or sold, but not yet purchased). Banks are not generally in business to make speculative profits or losses, being usually content to accept the margin between buying and selling or borrowing and lending. Therefore, as far as practically possible, the banks endeavour to match their sales and purchases of foreign currencies each day and thus maximise their returns. Balances must be held in order to be able to deal but such balances are closely monitored. It is, however, a practical impossibility for a dealer to balance his sales and purchases each day by carrying out normal transactions with clients. The dealer is therefore always either overbought in one currency (long) and oversold (short) in another. In the New Zealand context the banks are required to maintain a fully covered position at the end of each day's trading. Therefore, to the extent that they are 'overbought' in all foreign currencies and 'oversold' in N.Z. dollars they are required to effect a sale of foreign currency to the Reserve Bank (or a purchase from the Bank if they are oversold in foreign currency).

THE FORWARD MARKET

(i) Description

Foreign exchange can be purchased and sold not only on a spot basis but also on a forward basis i.e. for delivery on a stipulated future date. By undertaking a forward exchange transaction a person can cover (hedge) an exchange risk to which he is exposed and which is related to the probable movement in the rate of exchange for his foreign currency asset or liability.

Forward exchange has sometimes been described as a form of insurance and indeed in a narrow sense this is true. The ability to write a forward exchange contract, however, offers a wider range of opportunities than insuring against a possible exchange loss. These opportunities include the viable access to alternative foreign sources of finance, the ability effectively to change the currency in which finance is obtained and finally the ability to speculate against future movements in the spot rate of exchange.

In a broader sense therefore, forward cover relating to commercial and financial transactions concerns not only the protection from exchange rate losses but also the question of the currency in which credit is to be obtained or given. Even those people who regard forward cover solely as an insurance against an exchange loss and write cover for a commercial or financial transaction accordingly are, in effect, (even though they may not appreciate it) changing the currency in which they give or receive credit. The premium (or discount) payable for the cover when added to (or subtracted from) the original rate of interest should in normal circumstances give a net overall cost of funds roughly equal to the interest rate in the country of the currency to which the exchange rate risk is transferred.

The demand to hedge the exchange risks arising from expanding international trade created the need for forward exchange operations. Consider, for example, a New Zealand importer who has purchased goods from

the United Kingdom invoiced in sterling with payment due in 180 days. To eliminate his risk of a strengthening (revaluation) of sterling and also to provide the importer with a basis for determining his onward selling price in New Zealand, the importer can through his bankers purchase the sterling for delivery in 180 days' time at a fixed New Zealand dollar price. Conversely, a New Zealander exporting to the United States of America and expecting to receive United States dollars in 90 days in payment for his exports can sell those United States dollars forward and be assured that the New Zealand dollar amount he will receive will cover his costs and expected margin. Not to write forward contracts is to speculate on a weakening (devaluation) of the pound sterling in the first example and a revaluation of the United States dollar in the second.

Once again the banks, with their international correspondent relationships and thus the ability to marry quickly and efficiently buyers and sellers, are the major intermediary between supply and demand for forward exchange.

Foreign exchange exposure and the need for forward cover also arises from financial operations such as borrowing in foreign capital markets. The inherent exchange risk associated with these foreign liabilities can be covered by a forward purchase of the respective currency. In the New Zealand market, as for many other markets, the maximum period quoted for any particular contract is twelve months but by the regular roll-over on maturity of a twelve month contract the exchange risk associated with a longer term transaction can be covered. Admittedly, the cost of the forward cover is known for the first period only but this is not necessarily a justification for not hedging the exchange risk as more than likely, and in line with current trends, the interest rate on the loan will be subject to a six monthly review i.e. subsequent interest payments are also unknown.

In the well established foreign exchange markets dealers offer forward exchange cover in all the main currencies and endeavour to balance their forward books (including matching the maturity dates for forward sales and purchases) in much the same way as they do with spot transactions. An overall foreign exchange balance can be achieved by offsetting say an oversold spot position with an overbought forward position but this is an obviously mismatched position with regard to delivery dates and whilst the bank may have reduced its exchange risk it would be at risk to the extent of a move in the forward price of the foreign currency.

In the less developed markets there is not normally the depth of trading to enable dealers to balance their positions daily as a result of normal trading. Accordingly, the central bank will frequently make special arrangements to ensure that at least the international traders can obtain the forward cover they need.

In New Zealand, the Reserve Bank provides a two-tier system. At the first level, the Reserve Bank provides the trading banks with back-up cover but only for New Zealand dollar/United States dollar risks. At the second level, the trading banks write cover with customers for all major currencies except that in the case of a third country currency, such as sterling, a forward contract for the Sterling/U.S. dollar leg will be written between the New Zealand bank and a foreign correspondent in an overseas market with the U.S. dollar/New Zealand dollar leg being written in New Zealand with the Reserve Bank or a customer.

(ii) Determination of rates

Whilst relative supply and demand are the major factors which influence foreign exchange rates, the fundamental factors influencing supply and demand, and hence exchange rates, may be categorized as:

1. the balance of payments,
2. market expectations,
3. government influences, and
4. seasonal fluctuations.

The following examples give an indication of the main considerations. In a free market and in normal times the forward loading (premium or discount) tends to be equal to the differential between interest rates for the currencies concerned. In theory the forward price can be identical with the spot price but in practice the forward price is normally either higher (the foreign currency is at a 'premium') or lower (the foreign currency is at a 'discount') than the spot price.

Consider, for example, an exporter who has sold goods to a U.S.A. importer who has accepted the U.S. dollar export bill payable 90 days after sight. The exporter can then borrow U.S. dollars for 90 days at say 10% p.a. and immediately transfer the funds to his local bank account thus either reducing his overdraft on which he is being charged say 14% p.a. or have surplus funds available to invest at 14% p.a. The exporter has no exchange risk because on maturity the proceeds of his export bill will be used to repay his U.S. dollar loan. The exporter has thus borrowed at 10% p.a. and invested at 14% p.a. thereby earning a premium of 4% p.a.

On the other hand, if interest rates in the U.S.A. were 14% p.a. and only 10% p.a. in his own country the exporter would incur a cost (discount) of 4% p.a. if he wished to eliminate his exchange risk by incurring a liability (the borrowing) to offset his asset (the export bill).

In a second example (ignoring the question of exchange controls) suppose interest rates for a twelve months deposit in the United Kingdom are 18% p.a. and only 10% p.a. in the U.S.A. An investor in the U.S.A. would be keen to take advantage of the extra 8% p.a. to be earned by transferring his funds to the U.K. provided he could be assured that he did not suffer an exchange loss when returning the funds to the U.S.A. twelve months hence. Accordingly, he would sell his U.S. dollars spot for sterling and simultaneously write a forward contract to sell that sterling plus accrued interest for U.S. dollars for delivery in twelve months. Sizeable sums would be switched into sterling on this basis — buying sterling spot and selling sterling forward — until the market forces would:

1. push the forward price of U.S. dollars up and the forward value of sterling down; and
2. sterling interest rates would tend to decline in the face of the capital inflow whilst U.S. financial institutions would increase deposit rates to attract new funds. The interaction of these market forces would continue until the forward premium for U.S. dollars against sterling (the same as the forward discount for sterling against dollars) equated with the interest rate differential thus making the transfer of funds uneconomic.

Whilst in normal times the forward premium or discount is a function of different interest rate levels, at

times of high instability the degree of market expectation becomes a possible overriding factor when a currency comes under sudden pressure. In these times the markets impose a margin over and above interest rate differentials until participants decide that the extra margin meets with their evaluation of the presumed extra risk.

(iii) The New Zealand Situation

As with the spot rate of exchange, the Reserve Bank determines each day the forward premium it will charge or pay the banks for forward sales and purchase of U.S. dollars for periods up to a maximum of twelve months. (The converse applies if the forward price of U.S. dollars is at a discount).

The main criterion used by the Reserve Bank is the relationship between interest rates in New Zealand and the U.S.A. although other factors may be taken into account, particularly when normal interest rate relationships are disturbed.

At the present time, any person or company may write a forward contract with a New Zealand bank irrespective of the purpose for which the funds are required or the source from whence they came provided their bank is prepared to accept the credit risk. The point is that if a customer is not in a position to honour a forward contract on maturity, the loss, if any, ends up with the bank as it will have offsetting contracts with other customers and foreign correspondents it will still have to settle out. A bank may therefore suffer a loss from foreign exchange activities not because it has speculated but because it has dealt with a poor credit risk.

In New Zealand any contract written by a bank with a customer may on maturity be delivered, extended or cancelled. While the banks may write a customer forward contract without formality, in terms of the Exchange Control Regulations 1978, actual delivery of a sale of foreign currency to a customer under a forward contract is not permitted by the Reserve Bank unless that customer holds an appropriate authority in terms of the Exchange Control Regulations 1978 to transfer funds from New Zealand, e.g. an import licence. In a situation where there is no remitting authority held, the bank which has written the contract is obliged to cancel it out by effecting a notional repurchase of the foreign currency at the then spot buying rate which will result in the customer having made either a profit or a loss on the deal which will be settled between the parties in New Zealand currency.

CONCLUSION

The general purport of this article has been to provide a brief introduction to the subject of foreign exchange and the markets in which it is bought and sold. Accordingly, the various descriptions of the more common documents, instruments and procedures associated with the subject have been simplified for ease of presentation.

Despite the specialised terminology, the foreign exchange market is similar in many respects to markets for other goods and services. Although the government may, as in the case of New Zealand, play a major role in setting and managing the exchange rate itself, this rate should be regarded as the price of the market's major commodity, foreign exchange, and as such its price must be subject ultimately to the forces of demand and supply. The essential function of the foreign exchange market is to facilitate overseas trade and international capital flows.