The Structure of Treasury and Foreign Exchange

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ABSTRAST

Treasury can be defined as the management of assets and liabilities to optimize return through the use of financial instruments whereas foreign exchange can be defined as the conversion of one currency into another. Traditionally foreign exchange originated from international trade. Both the importer and the exporter must consider exchange rates to enable them to price their merchandises. In whichever currency the invoice is denominated foreign exchange is required. Today approximately 95% to 98% of this daily turnover is speculatively based. In view of this huge speculative turnover, markets are now connected by a sophisticated communications network and are monitored by participants by the use of computers.

INTRODUCTION

What is Treasury? Treasury is the management of assets and liabilities to optimize return through the use of financial instruments. In this paper we will introduce the Role of Treasury, the Structure of Treasury, the Operations of Treasury, the Regional Treasury Centers and Group Treasury Operations. Trading is now 7 days a week, 24 hours a day operating globally. Major markets exist in Australia (Sydney), Japan (Tokyo), Hong Kong, Singapore, United Kingdom (London), United States of America (New York), Canada (Toronto) and Germany (Frankfurt).

WHAT IS FOREIGN EXCHANGE?

What is foreign exchange? Foreign exchange is the conversion of one currency into another. It is an integral part of the world financial system. Without foreign exchange, many aspects of our daily life which we take for granted would not exist.

Why is foreign exchange important to us? Think of our daily life. When you go into a shop and buy something which is made abroad, whether it is a Swiss watch, some French wine, a Japanese television set or a German motor car, you cause a foreign exchange deal to take place. How do you pay for them? In your home currency of course, but does the producer of goods or provider of services get paid in his own currency. In between, a transaction has to occur that converts your currency into currency of the producer or service provider. That transaction is undertaken in the foreign exchange market.

Let us use some French wine drunk in the United States as an example. There are two ways in which the businessman who sells in the USA can pay the wine supplier who lives in France.

The first way is to send US dollars to France. The supplier, however, cannot normally spend these in his own country. He would have to exchange them for Euros. In this case, the French supplier and his banker complete a foreign exchange transaction. Each will take one kind of national money and give the other. There is another way of paying. The French supplier may ask the American businessman to pay in Euros. In this case, he invoices the buyer in Euros. The buyer has to go to his bank in the United States to exchange US dollars into Euros and then send these to France. The foreign exchange deal is done between the buyer and his bank in the United States.

Whether the foreign exchange deal is done in France or the United States does not affect the basic nature of a transaction. If a business transaction involving money has been concluded between residents of different currency areas, it necessary involves a foreign exchange deal. A foreign exchange transaction is merely an exchanging of one currency for another. It is like any other business deal in that one thing is exchanged for another. However, there is one major difference between a foreign exchange transaction and a normal trade transaction. Usually we exchange money for goods or goods for money. In foreign exchange money is exchanged for money.

In international trade, companies undertake normal business transactions. They buy, sell, borrow and lend. However, in selling and buying, they undertake transactions which cross international boundaries. So if one company sells goods to an overseas buyer and expects payment in his own currency, the buyer must pay the seller in what, to him, is a foreign currency.

He may maintain a foreign currency account with his bank in the currency of payment if he expects regular receipts in that currency. For example, the French seller may maintain a US dollar currency account with his bank to meet the regular receipts in that currency. This would also enable him to make regular payments in that currency. So by keeping a currency account he may avoid having to pay and sell foreign currency every time he makes a sale or purchase in that currency. However it should be noted that the French seller in the above example can ask his bank to hold on to the foreign currency received. He may perhaps invest it in an interest-bearing account until it is required to make a payment in the future. Whether the foreign exchange deal is done in the local currency of the French seller or in the foreign currency, it involves the need for foreign exchange in international trade (Rouse, 2002).

HOW FOREIGN EXCHANGE HAS DEVELOPED?

It is important in studying foreign exchange to understand clearly the meaning of certain technical terminology and market phrases. Foreign exchange theory is subject that is best learnt by fully understanding rather than learning by heart.

Foreign exchange is not a new idea. The changing of money has been part of the business of money since coins were minted. The first forward exchange transactions can be traced back to the money changers in Lombardy in the 1500s. In 1825, at the Congress of Vienna, the major power approved a set of rules for international financial conduct which established the foundation of the present monetary system.

FACTORS AFFECTING EXCHANGE RATE FLUCATIONS

We are sometimes probably aware that rates of exchange fluctuate, so that one currency weakens and a second currency strengthens in relation to another. Exchange rate fluctuations cause a serious risk to overseas traders, and this currency risk is important aspect of foreign exchange dealings. Sometimes exchange rates continue to fluctuate whenever they are allowed to respond to the pressures of supply and demand in the foreign exchange markets. The major effect of fluctuating exchange rates for international trade is the risk for exporters and importers that the value of foreign exchange they may have to deal in turns out to be different from what they had hoped and intended.

SUPPLY AND DEMAND

There are some factors which will contribute towards fluctuations in exchange rates. All of the factors are associated with supply and demand. ‘Supply and demand’ is economic concepts related to market situations. If a particular currency is plentiful, and is being offered by many dealers on the market, it will tend to become cheaper in terms of other currencies that are being purchased in exchange. Then the price of the currency being readily supplied and offered for sale will fall. On the other hand, if a currency is in demand, and a few people are offering it for sale, the price of that currency will rise. Therefore, fluctuations in exchange rates are caused by an excess of supply and demand, or vice versa. For example, if demand of customers to buy US dollars and sell sterling exceeds the counter balancing demand to buy sterling and sell US dollars, sterling will lose value against US dollars.

The factors which create a demand, or lack of demand, for a particular currency are very often difficult to identify or isolate. However, the following factors are known to affect rates of exchange:

1. The balance of payment
2. Confidence and speculation
3. Central bank intervention and exchange controls
4. International interest rate differentials
5. Leads and lags (‘Leads’ means a rush to pay in currency ahead of the time normally chosen for payments. ‘Lags’ means a delay in payment or sale of currency.)
6. Hot money

THE BALANCE OF PAYMENTS

The balance of payments of a country can be defined roughly as the difference between what the country earns and what it spends. When a country exports in value more goods and services than it imports, the country will earn more foreign currency than it spends. For example, if the UK exporters earn more than its importers have to pay out, this will result in a surplus on the UK balance of trade. If the UK businessmen want to earn sterling and not foreign currency, there will be a demand for the businessmen to sell foreign currency surpluses in exchange for sterling. Then the market pressure of supply and demand will create and increase in sterling’s value against other currencies. This could increase sterling’s value against other currencies.

From the above points we can see that a balance of payments surplus or deficit will affect the current rates of exchange between currencies. The effect of a balance of payments surplus will create a demand for the country’s currency which will increase in value in terms of other currencies. When other factors remain unchanged, there will be more money flowing into the country than comes out of it. Hence, more overseas buyers need the currency to pay for their imports from the country. Such demand will cause the currency to increase in value. Conversely, a country suffering a balance of payments deficit will find that its currency weakens or falls in value.

CONFIDENCE AND SPECULATION

Confidence of dealers in the future position of a particular country is based perhaps on speculation. It will probably affect their quoted rates for the currency of that country. If there is the possibility of a war, a strike or a possibility of a change in government in a country, it will prompt investors to sell the currency of that country. This would enable them to obtain the better rate of exchange now than they would do if the currency of that country was to fall in value.

Confidence, or lack of it, can lead to speculation in a currency. If people think a currency is going to devalue, they obviously wish to protect themselves by making sure they have none of that currency on their books. If speculation is against a currency, investors will sell that currency. If speculation is in favor of a currency, investors buy that currency. Therefore, if speculation becomes strong, the pressure of demand for or against the currency will force exchange rate movements in the direction intended by speculators. Speculative forces can have a major effect on exchange rates.

CENTRAL GOVERNMENT INTERVENTION

A central bank might intervene in the market to buy or sell its domestic currency when the government has a policy of fixed rates. It might allow its currency to float or allow only limited fluctuations in the rates for its currency.

When the government has a policy of fixed exchange rates, intervention would be made to prevent a devaluation of the currency by buying the currency and selling off some foreign exchange reserves. It might also prevent revaluation of the currency by selling the currency in exchange for the foreign currencies. When the government allows its currency to float, the central bank might still intervene to buy or sell its currency, if the government considers that the exchange rate for the currency has appreciated or depreciated to an unjustifiable level (Watson and Head, 2010).

Sometimes a government allows only limited fluctuations in exchange rates of their currency. So there will be an intervention point at which the central bank will intervene once the currency has appreciated or depreciated to a threshold level

EXCHANGE CONTROL

Exchange control regulations can also affect exchange rates. The introduction of new regulations which restrict the free movement of funds will cause a reduction in demand for a currency. Conversely, the relaxation or abolition of exchange control regulations will make for a freer market in that country’s currency and will usually lead to an increased demand.

HOT MONEY

Hot money is a vast sum of international money which is available for investment or for speculative purposes. When it is used for investment the money moves from one country to another in order to obtain benefit of higher interest rates. When it is speculative it is money which will flow from a weak currency into a stronger in the hope that the stronger currency will increase its value and enable a capital profit to be made. The same as hot money flows into a country, it can just as quickly flow out, putting speculative pressure on the country’s currency to weaken.

THE ROLE OF TREASURY

Whilst it is very important to satisfy customer needs, there will be certain products and services that a particular dealing room will not actively provide. It is important for the Treasury Manager to ensure to make the best use of available resources by concentrating on areas which will give the maximum return on the bank's investment. The role of Treasury can be divided into three areas:

1. It manages the bank's balance sheet in terms of funding assets and liabilities and interest rate exposures. To fulfill this responsibility Treasury uses all the tools available to them in terms of products. These are from basic spot to interest rate swaps, and management information driven by the bank's core systems.
2. It actively creates risk positions to generate trading income, e.g. foreign exchange.
3. It satisfies customer needs by offering an efficient and competitive service, e.g. foreign exchange products and treasury products.

The primary function of each of the bank's Treasury centers throughout the globe is the detailed management of the bank's assets and liabilities which fall within their sphere of responsibility. They have specific responsibilities for:

1. Maximizing profitability through trading and marketing treasury products.
2. Controlling interest rate risk.
3. Controlling exchange risk.
4. Controlling credit risk.
5. Controlling cash flow, where it arises from treasury activities and liquidity.
6. Developing Treasury capabilities and the presence in the market place.

It is important to stress that it is Treasury's responsibility to control all aspects of the above functions and to ensure that all risk positions created in other areas of the bank are taken-in under the Treasury umbrella. Sometimes brokers are hired who act as intermediary between banks. They receive commission from both banks involved in the transaction. Brokers' rates obtained from one more banks are actual dealing rates. Overall treasury functions play a major role in the bank's operations (Hull, 2014).

DEPARTMENT STRUCTURE

The dealing room is an area within the bank responsible for the purchase and sale of currencies, and the management of bank funds. All dealing room staff act independently within predetermined trading limits and referral to a superior is not required unless the limit is exceeded. All dealing room staff is judged on profitability, business development and creativity. Trading limits increase with seniority of position.

Trainee is attached to Dealer to learn systems and equipment, market practice and basic product knowledge while Dealer is responsible for trainee development, assigned higher trading limits with greater profits expected. He is responsible for relationship building with customers and the bank. Unit Head/Senior Dealer ensures section operates efficiently, profitably and within predetermined limits and other duties similar as for Dealer. Chief Dealer is responsible for daily operation of dealing room and ensures it operates efficiently, profitably and within predetermined limits. Other duties are same as for Dealer. Manager is ultimately responsible for dealing room and back office which involves departmental policy decisions. He must ensure compliance with central bank or Federal Reserve Bank regulations and oversees daily operation of dealing room, e.g. limits ratios. He also oversees profitability and ensures dealing ethics are upheld. The last but not the least is staff development.

FRONT OFFICE

This is basically the dealing room where all the various dealers in foreign exchange and money markets products are located. In the Treasury centers the bank's core treasury trading system has now been implemented in the dealing rooms. Treasury Trading System has now been implemented in the dealing rooms and this system will be discussed later on. The income generating side of Treasury will normally be split into specific areas of responsibility or Profit Centers. Within each profit center will be sub-activities or sub-profit centers which may represent a portfolio or an individual. Profit Centers of Treasury can be divided into Spot, Forward, Money Market and Forward Rate Agreement (FRA).

BACK OFFICE

The back office must be a discrete operating unit from the dealing room. The basic back office functions are to process all deals done by the dealers. This involves:

1. Obtaining independent verification of deal details directly with each counter party and making any settlement as required.
2. Ensuring a confirmation is dispatched and received for each deal struck.

Back office operations are also involved in numerous other control functions and often provide management information support to the dealers and Treasury managers. In summary, the back office ensures deal ticket is legible, correctly prepared, authorized and approved if alterations made. Back office refers dubious transactions to Manager, processes transactions and dispatches "Payment/Receive" instructions.

BOOKS/FINANCIAL CONTROL

It is the responsibility of Books to ensure that the accounts and the banks profit and loss records and balance sheet accurately reflect the activity of the dealing room. The dealers will report position and profit information which the Financial Control area will verify to the entries posted in the banks account. It will also correct errors and make adjustments as required.

CREDIT CONTROL

If Treasury is to deal with the outside world it must have credit lines in place to allow them to do so. It is the responsibility of Credit Department and Financial Institution to evaluate companies and banks and set limits in line with the needs of customers, banks and Treasury.

The treasury function is comprised of foreign exchange and money market dealing. It is involved in monitoring and managing the risks of currency and interest rate movements, and the credit risk of counterparty financial institutions. The credit risk is the risk of the counterparty being unable to pay in the foreign exchange dealings. It also includes settlement risk which is the risk of the counterparty failing on the settlement date of a contract requiring the exchange of principal sums (such as foreign exchange contract and exercised currency options) after the group office has issued payment instructions on its settlement of exchange.

TREASURY SUPPORT

Technology forms an important part of day to day life in Treasury providing information communications and processing capabilities. Technical services departments must be geared up to ensure systems are developed to ensure the smooth operations of existing technology.

Treasury is comprised of two distinct sections; a Dealing/Trading Room, i.e. Front Office where dealers make commitments in the name of the bank and a Treasury Administration section, i.e. Back Office where those transactions are recorded and settled. In addition, Financial Control provides treasury accounting records and certain independent checks on limits compliance and position revaluation. This is in order to maintain the integrity of treasury internal controls.

In some cases Managers of Treasury are responsible for the operation of both the dealing room and treasury administration section. Larger offices may have a Manager Trading and/or a Manager Treasury Administration who are responsible for these two areas, respectively, and who report to Manager Treasury.

In smaller offices, treasury administration section may report to Manager Financial Control. In any event it is especially important that Financial Control provides independent information of treasury accounting and independent checks on treasury reporting.

Treasury Administration has at least a "dotted reporting line" to a senior executive outside of Treasury. This will provide the means to raise sensitive issues and concerns among the senior executives within the bank.

THE DEALING ROOM OPERATIONS

Dealing rooms function in enclosed spaces apart from the public and segregated from other departments. In this section, there is a brief rundown how the dealing room operates, the dealer's responsibilities and the dealer's desk.

A dealing room is an area within the bank responsible for purchase and sale of currencies, and the management of bank funds. Access is restricted to dealing room staff and their authorized staff.

All dealing room staff has independently set predetermined trading limits and referral to a supervisor is not required unless the limit is exceeded. They are judged on their performance.

DEALERS RESPONSIBILITIES

Dealers are employed to make judgments on the market to meet profit targets while dealing within limits conveyed by Managers Treasury. Dealers are normally divided as follows:

- Dealers who trade primarily with banks are known as interbank dealers.
- Dealers who trade primarily with corporate and individual customers are known as corporate dealers.

Large treasury operations have greater degrees of specialization with degrees responsible for specific products and currencies. In all cases dealers are responsible to Managers Treasury for ensuring that all deals made are recorded, and that positions are monitored in compliance with established limits.

DEALING AUTHORIZATION

Dealers are advised in writing of their dealing authority (products and positions and stop/loss limits etc.). Dealers are provided with lists of approved brokers through whom deals may be concluded. Counterparty credit exposures, both banks and corporate customers are kept up-to-date during the day and are ready available to dealers to ensure counterparty limits are not breached. Each treasury operation is subject to maximum loss limits on all trading activities. These are known as stop/loss limits and are usually allocated by products/activity, as well as being delegated to individual dealers.

COMMUNICATIONS

Technology forms an important part of day-to-day life in Treasury providing information communications and processing capabilities. Dealing room equipment includes telephone, telex, voice recorder, time keeper and computers. Communications in the dealing room operations are through Bloomberg/Thomson Reuters dealing service. The service is used in the dealing room for communications and operations. Bloomberg and Thomson Reuters machines are provided in the dealing room for display of exchange/interest rates to provide information for news service of exchange and interest rates so that dealers can make fast and better decisions.

THE DEALER’S DESK

A typical dealer’s desk is comprised of the following items: Bloomberg, Thomas Reuters, Telerate, Information System and Communication. In some sites the Bloomberg/Thomas Reuters and Telerate news page can be accessed through the terminal, thereby reducing the need for separate Bloomberg /Thomson Reuters/Telerate terminal.

In the Bloomberg/Thomson Reuters machines, two news services are provided. They are continuously updated. They provide general news and sport as well as detailed financial reports. Exchange/interest rates displayed are for information only. They are not dealing rates.

Bloomberg/Thomson Reuters Direct Dealing is an advanced form of communication. Every subscriber to the system is assigned a code. A dealer contacts the subscriber by keying in the code. Conversations are displayed on screen. Telephone Direct Connection is the telephone direct connects to brokers, banks and customers. Brokers act as intermediary between banks. They receive commission from both banks involved in the transaction. Brokers’ rates, obtained from one or more banks, are actual dealing rates. There is keyboard for dealers’ usage. Brokers Boxes provide a constant up-to-date source of information to the dealer on what prices are quoted in the market.

REGIONAL TREASURY CENTERS

Regional Treasury Centers are located in major financial centers such as Hong Kong, Singapore, Dubai, London and New York, along with other dealing operations, comprise a global network of treasury departments which trade in a broad range of products. Regional Trading Centers and some of the other dealing operations are active market makers in foreign exchange, money markets, and over-the-counter off balance sheet products. All related business opportunities are referred to them.

A treasury operation which does not offer products such as Forward Rate Agreement, swaps, interest rate or currency operations, but which is asked to quote on such products by counterparty, must deal with the appropriate Regional Treasury Center before a competitor bank. Otherwise the Regional Treasury Center price at least equals that of the competitor.

INTRA GROUP BUSINESS

Exchange traded off balance sheet products, such as currency and interest rate futures and options, are done by brokers and group members. Business opportunities in these areas are directed to Treasury in the first instance for referral to an appropriate group member, if necessary. This does preclude group treasury operations from using external futures or options brokers where appropriate.

TREASURY TRADING SYSTEM

Many global banks established a Treasury development function charged with upgrading the bank's treasury capabilities in line with the bank's status as a major international financial institution. It was recognized that, as an inherent part of the development, banks needed improved information system and accounting practices, which in turn would lead to improved control and flexibility, allowing them to retain strong treasury position in an ever more competitive market. It is with these overall objectives in mind that has led to the development of the bank's sophisticated Treasury Trading System.

The system is comprised of front office system which runs on a network of personal computers with touch screen deal input and information retrieval, and a back office system running on a micro-computer. It has the following features:

1. The system allows dealers to enter deals directly simply using Personal Computer Touch Screen. The deal record is automatically generated by computer and automatically processed. Therefore this speeds up the transactions, quicker and saves costs.
2. The system provides information for dealers from both internal and external sources and from both front office and back office.
   - Internal sources – the dealers own actual position.
   - External sources – the system display Bloomberg/Thomson Reuters rates so they have immediate access to market information.
   - Front office system – provides various functions of the system.
   - Back office system – also provides various functions of the system.

Therefore, the system provides accurate up-to-date market information which dealers can use to make more informed decisions and ultimately make better profit for the banks.

3. The system provides Real Time control of exchange risk, interest risk, credit risk and cash flow positions. The system provides a better way to manage risks. It allows managers to monitor and control more easily.

CONCLUSION

The purpose of this paper is to provide readers with specific knowledge of foreign exchange and the work of the bank's Foreign Exchange and Treasury Department. The research article covers the practical and procedural aspects of the work related to foreign exchange including the functions of the Treasury and Foreign Exchange Department, the role of foreign exchange, the bank's Foreign Exchange services and the Treasury Trading System. It also gives a summary to the foreign exchange market and its role and some basic knowledge of its operations.

REFERENCES

Hull, J. C. (2014) 'Fundamentals of Futures and Options Markets' Eighth Edition, Pearson Education Limited, Essex CM20 2JE, England

Rouse, C. N. (2002) 'Bankers' Lending Techniques' 2nd edition, Financial World Publishing, Kent, United Kingdom

Watson, D. and Head, A. (2010) 'Corporate Finance Principles and Practice': fifth edition, Pearson Education Limited, Harlow, Essex CM20 2JE, England

The Treasury Department has a long history of dealing with sanctions. Dating back prior to the War of 1812, Secretary of the Treasury Gallatin administered sanctions imposed against Great Britain for the harassment of American sailors. During the Civil War, Congress approved a law which prohibited transactions with the Confederacy, called for the forfeiture of goods involved in such transactions, and provided a licensing regime under rules and regulations administered by Treasury.Â The FFC's initial purpose was to prevent Nazi use of the occupied countries' holdings of foreign exchange and securities and to prevent forced repatriation of funds belonging to nationals of those countries. These controls were later extended to protect assets of other invaded countries. Process Foreign Exchange Transactions Over the Internet. Companies typically purchase or sell spot or forward contracts in foreign currencies in order to hedge their transaction activities that involve other currencies. However, this is a labor-intensive process involving calls to several banks to see which ones quote the best price.Â The multitude of treasury-based transactions can take up a large part of the finance staffâ€™s workday and is highly subject to error. These tasks involve management of a companyâ€™s cash position, investment and debt portfolio, and risk analysis. The normal approach to these tasks is to track, summarize, and analyze them on an electronic spreadsheet, with manual input derived from all of the companyâ€™s banks and investment firms on a daily basis. Treasury functions also deal with complex financial areas, such as foreign exchange rates, derivatives and interest rate swaps, among other things. Treasury functions also might differ between, say, a manufacturing firm and a bank. Controller performs the main tasks of recording, internal and external financial reporting. Both the treasurer and controller are responsible to the top management. Summary of Corporate Treasury FunctionsÂ Please do send us the Structure and Organization of Treasury problems on which you need Help and we will forward then to our tutors for review. Topics under Cash Management