



# Certified Foreign Exchange Professional Sample Material

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## 1. INTRODUCTION

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### 1.1. 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.

### 1.2. Why is foreign exchange important to us?

Think of your daily life. When you go into a shop and buy something which is made abroad, whether it is as Swiss watch, some American electronic product, a Japanese television set or a German motor car, you cause a foreign exchange transaction to take place. How do you pay for them? In your home currency of course, but does the producer of the goods get paid in your home currency? No, he is paid in his own currency. In between, a transaction has to occur that converts your currency into the currency of the producer. That transaction is undertaken in the foreign exchange market.

Let us use some Indian handicrafts sold in the United States as an example. There are two ways in which the businessmen who sell handicrafts in the USA can pay the handicraft supplier who lives in India.

The first way is to send US dollars to India. The Indian supplier, however, won't be able to spend these in his own country. He would have to exchange them for Indian rupees. In this case, the Indian 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 Indian supplier may ask the American businessman to pay in Indian rupees. In this case, he invoices the buyer in Indian rupees. The buyer has to go to his bank in the United States to exchange some US dollars into Indian rupees and then send these to India. The foreign exchange deal is done between the buyer and his bank in the United States.

Whether the foreign exchange deal is done in India or in 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 necessarily involves a foreign exchange deal. A foreign exchange deal is merely an exchanging of one currency 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. But 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. The local currency of one trader is a foreign currency to the other in international trade. So if the Indian seller in the above example receives the US dollars, to him this is a foreign currency. He must do something with this foreign currency.

- a. 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 Indian 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 buy and sell foreign currency every time he makes a sale or purchase in that currency.
- b. The Indian 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 Indian seller or in the foreign currency, it involves the need for foreign exchange in international trade.

### **1.3. What is a foreign Exchange market?**

Do you remember the first time you visited a bazaar or a vegetable market? Have you ever been in the Treasury Room of a big bank? The experience is likely to amuse you and you will find a lot common in both the places. In the dealing room or treasury floor of a bank, traders are just making a market in foreign exchange, pieces of paper denominated in foreign currencies. It doesn't matter that at a vegetable market buyers and sellers face one another in a given physical place, whereas in the foreign exchange trading room all transactions are made via the telephone or computers throughout a geographical area that covers the world.

The foreign exchange market is the market in which currencies of different countries are traded. It is here that buyers and sellers trade in different currencies in the same way goods and services are sold. It is here in the foreign exchange market that the exchange rate is determined.

Foreign exchange is traded at the retail level in many banks and firms specializing in that business. Organized markets in New York, Tokyo, London, Zurich, Dubai, Singapore etc, trade hundreds of billions of US dollars worth of currencies each day.

### **1.4. Foreign Exchange as a Financial Market**

Currency exchange is very attractive for both the corporate and individual traders who make money in the foreign exchange markets. The following features make this market different as compared to all other sectors of the world financial system:

1. Heightened sensibility to a large and continuously changing number of factors;
2. Accessibility to all traders in the major currencies;
3. Guaranteed quantity and liquidity of the major currencies;
4. Increased consideration for several currencies, round-the clock;
5. Business hours which enable traders to deal after normal hours or anytime;
6. National holidays in their country finding markets abroad open and
7. Extremely high efficiency relative to other financial markets.

The Foreign Exchange market, commonly referred as FOREX, is where banks, investors and speculators exchange one currency to another. It is also the largest financial market in the world. The US stock market may trade \$10 billion in one day, whereas the Forex market will trade up to \$2 trillion in one single day.

The Forex market is an open 24 hours a day. This market follows the sun around the world, moving from the major banking centres of the United States to Australia and New Zealand to the Far East, to Europe and finally back to the United States.

The Forex market is not centralized, like in currency futures or stock markets. Trading occurs over computers and telephones at thousands of locations worldwide.

Until now, professional traders from major international commercial and investment banks have dominated the FX market. Other market participants range from large multinational corporations, global money managers, registered dealers, international money brokers, and futures and options traders, to private speculators.

There are three main reasons to participate in the FX market.

- One is to facilitate an actual transaction, whereby international corporations convert profits made in foreign currencies into their domestic currency.
- Corporate treasurers and money managers also enter the FX market in order to hedge against unwanted exposure to future price movements in the currency market.
- The third and more popular reason is speculation for profit. In fact, today it is estimated that less than 5% of all trading on the FX market is actually facilitating a true commercial transaction.

## 1.5. Foreign Exchange is an OTC Market (Over The Counter)

The FX market is considered an Over The Counter (OTC) or 'Interbank' market, due to the fact that transactions are conducted between two counterparts over the telephone or via an electronic network. Trading is not centralized on an exchange, as with the stock and futures markets. A true 24-hour market, Forex trading begins each day in Sydney, and moves around the globe as the business day begins in each financial center, first to Tokyo, London, and New York. The market is open continuously except for weekends. Unlike any other financial market, investors can respond to currency fluctuations caused by economic, social and political events at the time they occur - day or night.

Foreign exchange trading is generally conducted in a decentralized manner, with the exceptions of currency futures and options.

Foreign exchange has experienced spectacular growth in volume ever since currencies were allowed to float freely against each other. While the daily turnover in 1977 was U.S. \$5 billion, it increased to U.S. \$600 billion in 1987, reached the U.S. \$1 trillion mark in September 1992, and stabilized at around \$1.5 trillion by the year 2000. According to the Bank of International Settlements, as of April 2010, average daily turnover in global foreign exchange markets is estimated at \$3.98 trillion, a growth of approximately 20% over the \$ 3.21 trillion daily volume as of April 2007.

The \$3.98 trillion breakdown is as follows:

- \$1.490 trillion in spot transactions
- \$475 billion in outright forwards
- \$1.765 trillion in foreign exchange swaps
- \$250 billion in options and other products

Trading in London accounted for 36.7% of the total, making London by far the most important global centre for foreign exchange trading. In second and third places respectively, trading in New York City accounted for 17.9% and Tokyo accounted for 6.2%.

Most developed countries permit the trading of FX derivative products (like currency futures and options on currency futures) on their exchanges. All these developed countries already have fully convertible capital accounts. A number of emerging countries do not permit FX derivative products on their exchanges in view of controls on the capital accounts. The use of foreign exchange derivatives is growing in many emerging economies. Countries such as Korea, South Africa, and India have established currency futures exchanges, despite having some controls on the capital account.

Main factors that influence this spectacular growth in volume is indicated below.

### Interest Rate Volatility

Economic internationalization generated a significant impact on interest rates as well. Economics became much more interrelated and that exacerbated the need to change interest rates faster. Interest rates are generally changed in order to adjust the growth in the economy, and interest rate differentials have a substantial impact on exchange rates.

### Business Internationalization

In recent decades the business world the competition has intensified, triggering a worldwide hunt for more markets and cheaper raw materials and labor. The pace of economic internationalization picked up even more in the 1990s, due to the fall of Communism in Europe and to up-and-down economic and financial development in both Southeast Asia and South America. These changes have been positive toward foreign exchange, since more transactional layers were added.

### Increasing of Corporate Interest

A successful performance of a product or service overseas may be pulled down from the profit point of view by adverse foreign exchange conditions and vice versa. An accurate handling of the foreign exchange may enhance the overall international performance of a product or service. Proper handling of foreign

exchange generally adds substantially to the rate of return. Therefore, interest in foreign exchange has increased in the past decade. Many corporations are using currencies not only for hedging, but also for capitalizing on opportunities that exist solely in the currency markets.

### **Increasing of Traders Sophistication**

Advances in technology, computer software, and telecommunications and increased experience have increased the level of traders' sophistication. This enhanced traders' confidence in their ability to both generate profits and properly handle the exchange risks. Therefore, trading sophistication led toward volume increase.

### **Developments in Telecommunications**

The introduction of automated dealing systems in the 1980s, of matching systems in the early 1990s, and of Internet trading in the late 1990s completely altered the way foreign exchange was conducted. The dealing systems are online computer systems that link banks on a one-to-one basis, while matching systems are electronic brokers. They are reliable and much faster, allowing traders to conduct more simultaneous trades. They are also safer, as traders are able to see the deals that they execute. The dealing systems had a major role in expanding the foreign exchange business due to their reliability, speed, and safety.

### **Computer and Programming development**

Computers play a significant role at many stages of conducting foreign exchange. In addition to the dealing systems, matching systems simultaneously connect all traders around the world, electronically duplicating the brokers' market. The new office systems provide full accounting coverage, ticket writing, back office processing, and risk management implementation at a fraction of their previous cost. Advanced software makes it possible to generate all types of charts, augment them with sophisticated technical studies, and put them at traders' fingertips on a continuous basis at a rather limited cost.

## **1.6. Market Participants**

Unlike a stock market, the foreign exchange market is divided into levels of access. At the top is the interbank market, which is made up of the largest commercial banks and securities dealers. Within the inter-bank market, spreads, which are the difference between the bid and ask prices, are razor sharp and not known to players outside the inner circle. This is due to volume. If a trader can guarantee large numbers of transactions for large amounts, they can demand a smaller difference between the bid and ask price, which is referred to as a better spread.

In all efficient markets, the speculator has an important role taking over the risks that a commercial participant hedges. The boundaries of speculation in the foreign exchange market are unclear, because many of the above mentioned players also have speculative interests, even central banks. The foreign exchange market is popular with investors due to the large amount of leverage that can be obtained and the liquidity with which positions can be entered and exited.

The levels of access that make up the foreign exchange market are determined by the size of the "line" (the amount of money with which they are trading). The top tier interbank market accounts for 53% of all transactions. After that there are usually smaller banks, followed by large multi-national corporations (which need to hedge risk and pay employees in different countries), large hedge funds, and even some of the retail FX market makers.

### **Central banks**

Central Banks also participate in the foreign exchange market to align currencies to their economic needs. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market.

As many central banks have very substantial foreign exchange reserves, their intervention power is significant. Among the most important responsibilities of a central bank is the restoration of an orderly

market in times of excessive exchange rate volatility and the control of the inflationary impact of a weakening currency.

Frequently, the mere expectation of central bank intervention is sufficient to stabilize a currency, but in case of aggressive intervention the actual impact on the short-term supply/demand balance can lead to the desired moves in exchange rates.

However, in recent times, the depth of the currency markets is such, that no amount of intervention can challenge market forces. A case in point is CHF. The Swiss National Bank has tried to intervene in the market in the whole of 2010 and 2011, with the result that they have losses mounting to billions of USD. USD/CHF has appreciated from 124 to 93 in the last two years.

Fed Reserve of the USA is one of the most influential central banks. Like the other central banks, the Federal Reserve of the USA affects the foreign exchange markets in three general areas:

- The discount rate;
- The money market instruments;
- Foreign exchange operations.

Fed Reserve has a Board of Governors and is headed by a Chairman. Fed Reserve Chairmen have a lot of influence on the market, and traders keenly watch his every move and listen to his every speech. More information on Fed can be had from the website (<http://www.federalreserve.gov/>)

The major Central Banks are involved in foreign exchange operations in more ways than intervening in the open market. Their operations include payments among central banks or to international agencies. Also, payments to the World Bank or the United Nations are executed through Central Banks. Intervention in the United States foreign exchange markets by the U.S. Treasury and the Federal Reserve is geared toward restoring orderly conditions in the market or influencing the exchange rates. It is not geared toward affecting the reserves. There are two types of foreign exchange interventions: naked intervention and sterilized intervention.

Naked intervention, or unsterilized intervention, refers to the sole foreign exchange activity. All that takes place is the intervention itself, in which the Central Bank either buys or sells home currency against a foreign currency. In addition to the impact on the foreign exchange market, there is also a monetary effect on the money supply. If the money supply is impacted, then consequent adjustments must be made in interest rates, in prices, and at all levels of the economy. Therefore, a naked foreign exchange intervention has a long-term effect.

Currency	Bank	Website
USD	Federal Reserve System	<a href="http://www.federalreserve.gov/">http://www.federalreserve.gov/</a>
GBP	Bank of England	<a href="http://www.bankofengland.co.uk/">http://www.bankofengland.co.uk/</a>
CHF	Swiss National Bank	<a href="http://www.snb.ch/">http://www.snb.ch/</a>
AUD	Reserve Bank of Australia	<a href="http://www.rba.gov.au/">http://www.rba.gov.au/</a>
NZD	Reserve Bank of New Zealand	<a href="http://www.rbnz.govt.nz/">http://www.rbnz.govt.nz/</a>
CAD	Bank of Canada	<a href="http://www.bankofcanada.ca/">http://www.bankofcanada.ca/</a>
JPY	Bank of Japan	<a href="http://www.boj.or.jp/">http://www.boj.or.jp/</a>
INR	Reserve Bank of India	<a href="http://www.rbi.org.in/">http://www.rbi.org.in/</a>
RUB	Bank of Russia	<a href="http://www.cbr.ru/eng/">http://www.cbr.ru/eng/</a>
CHY	The People's Bank of China	<a href="http://www.pbc.gov.cn/english/">http://www.pbc.gov.cn/english/</a>

Sterilized intervention neutralizes its impact on the money supply. As there are rather few central banks that want the impact of their intervention in the foreign exchange markets to affect all corners of their economy, sterilized interventions have been the tool of choice. The sterilized intervention involves an additional step to the original currency transaction. This step consists of a sale of government securities that offsets the reserve addition that occurs due to the intervention. It may be easier to visualize it if you think that the central bank will finance the sale of a currency through the sale of a number of government

securities. Because a sterilized intervention only generates an impact on the supply and demand of a certain currency, its impact will tend to have a short-to medium term effect.

## **Banks**

The interbank market caters for both the majority of commercial turnover and large amounts of speculative trading every day. A large bank may trade billions of dollars daily. Some of this trading is undertaken on behalf of customers, but much is conducted by proprietary desks, trading for the bank's own account. Until recently, foreign exchange brokers did large amounts of business, facilitating interbank trading and matching anonymous counterparts for large fees. Today, however, much of this business has moved on to more efficient electronic systems. The broker squawk box lets traders listen in on ongoing interbank trading and is heard in most trading rooms, but turnover is noticeably smaller than just a few years ago.

## **Interbank Brokers**

Until recently, foreign exchange brokers were doing large amounts of business, facilitating Interbank trading and matching anonymous counterparts for comparatively small fees. With the increased use of the Internet, a lot of this business is moving onto more efficient electronic systems that are functioning as a closed circuit for banks only.

The traditional broker box, which lets bank traders and brokers hear market prices, is still seen in most trading rooms, but turnover is noticeably smaller than just a few years ago due to increased use of electronic booking systems.

## **Commercial companies**

An important part of this market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. Commercial companies often trade fairly small amounts compared to those of banks or speculators, and their trades often have little short term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency's exchange rate. Some multinational companies can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

## **Hedge funds**

About 70% to 90% of the foreign exchange transactions are speculative. In other words, the person or institution that bought or sold the currency has no plan to actually take delivery of the currency in the end; rather, they are solely speculating on the movement of that particular currency. Hedge funds have gained a reputation for aggressive currency speculation since 1996. They control billions of dollars of equity and may borrow billions more, and thus may overwhelm intervention by central banks to support almost any currency, if the economic fundamentals are in the hedge funds' favor. The recent movement in Swiss Franc, CHF, is a case in point. All amounts of intervention from Swiss National Bank has not yielded anything, and the strength of the Swiss Franc continues unabated.

Hedge funds have gained a reputation for aggressive currency speculation in recent years. There is no doubt that with the increasing amount of money some of these investment vehicles have under management, the size and liquidity of foreign exchange markets is very appealing. The leverage available in these markets also allows such a fund to speculate with tens of billions at a time. The herd instinct that is very apparent in hedge fund circles was seen in the early 1990's with George Soros and others squeezing the GBP out of the European Monetary System.

It is unlikely, however, that such investments would be successful if the underlying investment strategy was not sound. It is also argued that hedge funds actually perform a beneficial service to foreign exchange markets. They are able to exploit economical weakness and to expose a countries unsustainable financial plight, thus forcing realignment to more realistic levels.

## Investment management firms

Investment management firms (who typically manage large accounts on behalf of customers such as pension funds and endowments) use the foreign exchange market to facilitate transactions in foreign securities. For example, an investment manager bearing an international equity portfolio needs to purchase and sell several pairs of foreign currencies to pay for foreign securities purchases.

Some investment management firms also have more speculative specialist currency overlay operations, which manage clients' currency exposures with the aim of generating profits as well as limiting risk. Whilst the number of this type of specialist firms is quite small, many have a large value of assets under management (AUM), and hence can generate large trades.

## Retail foreign exchange brokers

Retail traders (individuals) constitute a growing segment of this market, both in size and importance. Currently, they participate indirectly through brokers or banks. Retail brokers, while largely controlled and regulated in the USA by the Commodities Futures Trading Commission (CFTC) and National Futures Association (NFA), have in the past been subjected to periodic foreign exchange scams. To deal with the issue, the NFA and CFTC began (as of 2009) imposing stricter requirements, particularly in relation to the amount of Net Capitalization required of its members. As a result many of the smaller, and perhaps questionable brokers are now gone.

The arrival of the Internet has brought us a host of retail brokers. There is a numbered amount of these non-bank brokers offering foreign exchange dealing platforms, analysis, and strategic advice to retail customers. The fact is many banks do not undertake foreign exchange trading for retail customers at all, and do not have the necessary resources or inclination to support retail clients adequately. The services of such retail foreign exchange brokers are more similar in nature to stock and mutual fund brokers and typically provide a service-orientated approach to their clients.

There are two main types of retail FX brokers offering the opportunity for speculative currency trading: *brokers* and *dealers* or *market makers*. *Brokers* serve as an agent of the customer in the broader FX market, by seeking the best price in the market for a retail order and dealing on behalf of the retail customer. They charge a commission or mark-up in addition to the price obtained in the market. *Dealers* or *market makers*, by contrast, typically act as principal in the transaction versus the retail customer, and quote a price they are willing to deal at—the customer has the choice whether or not to trade at that price.

In assessing the suitability of an FX trading service, the customer should consider the ramifications of whether the service provider is acting as principal or agent. When the service provider acts as agent, the customer is generally assured of a known cost above the best inter-dealer FX rate. When the service provider acts as principal, no commission is paid, but the price offered may not be the best available in the market—since the service provider is taking the other side of the transaction, a conflict of interest may occur.

## Non-bank foreign exchange companies

Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. These are also known as foreign exchange brokers but are distinct in that they do not offer speculative trading but currency exchange with payments. i.e., there is usually a physical delivery of currency to a bank account.

It is estimated that in the UK, 14% of currency transfers/payments are made via Foreign Exchange Companies. These companies' selling point is usually that they will offer better exchange rates or cheaper payments than the customer's bank. These companies differ from Money Transfer/Remittance Companies in that they generally offer higher-value services.



### **Money transfer/remittance companies**

Money transfer companies/remittance companies perform high-volume low-value transfers generally by economic migrants back to their home country. In 2007, there was an estimated \$369 billion of remittances (an increase of 8% on the previous year). The four largest markets (India, China, Mexico and Philippines) receive \$95 billion. The largest and best known provider is Western Union with 345,000 agents globally.<sup>1</sup>

Investors and Speculators - Taking advantage of two currencies interest rate differentials is another popular strategy that can be efficiently undertaken in a market with high leverage.

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