



# Forex - Trading around the World

Notes from the course offered by InteractiveBrokers

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# 1 Trading around the World

The **foreign exchange market** (forex/FX) is the global marketplace where currencies are bought and sold. It is the largest and most liquid financial market, with an average daily trading volume of \$5 trillion. It involves exchanging one country's money for another's—for example, exchanging US dollars for Japanese yen. Currencies are always traded **in pairs** because one is sold and the other one bought at the same time. Currencies also do not move in isolation; their value always changes relative to another currency. Thus, the performance of the currency you buy must be evaluated against that of the currency you sold. You only profit if the bought currency rises relative to the sold currency.

Forex is popular because it is a speculative tool. Currency values are highly volatile which creates opportunities for profit and risk. Furthermore, foreign currency is useful to both settle business and trade obligations (especially in the case of multinationals) and to purchase foreign assets. Forex is also highly liquid, since trading happens 24 hours a day across the world. Because of the size of the forex international market, there are many types of players, such as speculators (who trade currencies for profit), portfolio managers (who adjust currency exposure for large investment funds), corporations (especially for international payments and stabilising cash flow), banks and financial institutions (to facilitate trade, provide liquidity, and trade for clients), as well as governments (influence exchange rates through policy, manage national reserves, and intervene in markets during crises).

## 1.1 Types of Currency

**Major currencies**, the *majors* are currencies that are involved in the majority of global forex transactions because their economies are large and stable, they have deep financial markets, and they are widely used in trade and investment. The ones most widely recognised to belong to this group are:

- USD
- EUR
- JPY
- GBP
- CHF
- CAD
- AUD

Most major currency pairs place USD on one side, for example in USD/JPY or USD/CHF. Sometimes, major pairs might quote the other currency as the base like in EUR/USD. **Minor currencies** are those that are still widely traded but less liquid than majors and include NOK, SEK, NZD, MXN, and THB. Minor pairs involve the USD versus the minor in question. A **cross rate** is a currency pair that does not include USD, such as EUR/CHF or GBP/JPY. These exist because they help measure values between two foreign currencies directly and they allow

interested parties to exchange currencies without the presence of USD as an extra intermediary. Crosses can be more volatile and less liquid than USD-based pairs.

#### The Chinese Yuan?

Even though China has the second largest economy in the world, the yuan is not yet considered a major currency due to several reasons. First, China maintains strict capital controls; money cannot freely flow in/out of the country, since large cross-border transfers require approval. Investors cannot freely purchase Chinese assets without restrictions, so the yuan is not fully convertible. In addition to that, the yuan's exchange rate is heavily managed by the People's Bank of China, who sets a daily midpoint rate and allows the currency only to float within a narrow band. Lastly, although CNY usage is rising, its share is lower than major currencies used in global systems like SWIFT.

That being said, if someday China loosens capital controls, CNY becomes fully convertible, exchange rates are allowed to float freely, and foreign ownership restrictions ease, CNY might become a major currency.

## 1.2 Currency Products

There are three major product types for forex trading. The first is **cash (spot) currency trading**. This is the largest and most common methods and it occurs between banks and financial institutions, electronically or by phone, or on the decentralised interbank market. Spot currency trades are made immediately, have very high liquidity, and prices usually come from competition amongst major institutions. Buyers and sellers are connected via **Electronic Communication Networks (ECNs)**. ECNs may either widen the spread slightly to make money from the difference or allow quotes to be freely added and just charge a fixed fee per trade.

The second big currency product is **currency futures**. Currency futures are financial contracts traded on regular exchanges, like Chicago Mercantile Exchange, where two parties agree to exchange one currency for another at a fixed price on a specific future date. FX futures allow traders to speculate, hedge, or manage currency risk in a standardised and regulated way, since you essentially lock in the price at the moment of signing the contract. Each contract has a currency pair, contract size, settlement date, and price (in terms of how much one currency is worth in another). Currency futures use a sort of good-faith deposit called **margin**, which needs to be deposited in order to control the future. Margins are used to show the exchange that you are able to cover potential losses on your position.

Let's say EUR/USD futures for June are priced at 1.1000. This means that you agree today that in June, €125,000 will be worth \$137,500 ( $125,000 \times 1.10$ ).

If in June the actual EUR/USD rate rises to 1.1200, you made money because the euro became stronger. If it falls to 1.0800, you lose money because the euro weakened.

You can close the position anytime before expiration—no need to wait for June.

The third large type of currency product is **futures options**, which are basically options on currency futures. They give the right, but not the obligation, to buy or sell a futures

contract. They also require margin and are generally used for hedging and more advanced trading strategies.

An **exchange rate** is simply the price of one currency in terms of another. For instance, USD/CHF= 0.9150 is telling you that one USD equals to 0.9150 Swiss francs. In the same manner as stock prices, exchange rates fluctuate constantly, because global supply and demand change. This is especially the case for countries that set **floating exchange rates**, rates whose prices are set by market forces and not governments. A **spot exchange rate**, as the name implies, is the current real-time price for exchanging one currency for another. It arises from the supply and demand generated from millions of global investors, central banks, exporters and importers, as well as banks trading in the interbank market. Some of the major drivers of exchange rates are:

- **Trade Balance:** Countries that export a lot tend to have stronger currencies because foreign buyers need to purchase that country's currency to buy its goods.
- **Global demand for country's goods & services:** High-quality products, strong industries, or booming tourism all increase demand for the domestic currency.
- **Foreign investment activity:** When investors buy things like bonds, real estate, factories, or company stocks, they must convert their money into that country's currency.
- **Political stability and confidence:** A stable political environment attracts investors, whereas instability (e.g. wars, corruption, civil unrest) drive them away.
- **Wealth and consumer spending power:** If a large portion of the population is affluent, domestic spending rises, economic growth strengthens, and foreign investors see opportunity that may lead the currency to appreciate.

**Central banks** strongly influence exchange rates too through monetary policy. This is because they are tasked with managing interest rates, money supply, inflation control, and the stability of the overall banking system. Interest rates in particular are essential because, when they are high they attract foreign investors who want higher returns on bonds and savings, a process that increases demand for the currency and thus appreciates it. The opposite is true when interest rates are lower. Because of the power that central banks hold over their currencies, investors must find them credible and trustable. If investors doubt a central bank's capacity to stick to its word, fight inflation, or respond to crises effectively, its currency often suffers.

## 2 FX Stock Trading

When trading international stocks, investors not only face the usual risks of stock investing, but also an extra layer of currency risk, settlement complications, and technical considerations around data subscriptions and margin use. Movements in the exchange rate between the currency used to buy the shares and the base account currency can singlehandedly change an investor's profit or loss. There is the possibility that the investor made a correct investment decision on the stock itself, but still lost money because the currency weakened.

Say you exchange \$100 USD for 91.50 CHF (at USD/CHF = 1.0929) and buy a Swiss stock worth 91.50. If the stock price stays exactly the same, but the USD/CHF goes to 0.9836, then you suffered a loss, because when you convert back to USD, you will receive only \$90 instead of \$100.

Another possible complication is related to settlement; when you trade overseas securities, the trade must settle in the local market. If the foreign exchange or the local banking system are closed, trade settlement might face delays—making it difficult for investors to receive cash, deliver shares, or meet margin requirements.

How an investor manages exchange rate exposure depends on the type of account they use. If they have a **cash account**, the investor must convert currency first before buying shares. They effectively hold a foreign cash balance whose value will fluctuate with the currency. If, on the other hand, they hold a **margin account**, the investor has the extra flexibility to *borrow* the foreign currency instead of converting upfront. This makes the investor's account show a loan in the foreign currency that is secured by a USD collateral. Borrowing the foreign currency thus creates a mixture of FX exposure and stock exposure. When purchasing a foreign stock via margin, one may either opt to buy the foreign currency first, so that a cash credit in the foreign currency is granted, or attach an FX order to the stock purchase instead, which means the platform will execute the FX order automatically as the stock order fills.

Because these two big variables, stock price and exchange rate, move simultaneously, there are four possible profit and loss combinations:

Stock Movement	FX Movement	P&L Outcome
Up	Up	Big gain
Up	Down	Partial gain or break-even
Down	Up	Partial loss
Down	Down	Large loss

Table 1: Four Possible P&L Outcomes from Stock and FX Movements