Lesson 2: Currency Exchange Rate Calculations: Part 1

Exchange Rate Quotations

In a direct currency quote (DC/FC), the *domestic* currency is stated as the *price* currency and *foreign* currency is stated as the *base* currency.

- For example, for a trader in the U.S, an exchange rate quote of 1.5 USD/GBP is a direct currency quote.

In an indirect currency quote (FC/DC), the *foreign* currency is stated as the *price* currency and *domestic* currency is stated as the *base* currency.

- For example, for a trader in the U.S., an exchange rate quote of 0.67 GBP/USD is an indirect currency quote.

Note that direct and indirect quotes are just the inverse (reciprocal) of each other (1/1.5 = 0.67)

It is often confusing to describe exchange rate quotes as direct or indirect quotes because domestic and foreign currencies depend on where one is located. To overcome this confusion, the professional FX market has developed a set of FX market conventions.

FX Rate Quote Convention	Name Convention	Actual Ratio (Price currency/Base currency)
EUR	Euro	USD/EUR
JPY	Dollar–yen	JPY/USD
GBP	Sterling	USD/GBP
CAD	Dollar–Canada	CAD/USD
AUD	Aussie	USD/AUD
NZD	Kiwi	USD/NZD
CHF	Swiss franc	CHF/USD
EURJPY	Euro–yen	JPY/EUR
EURGBP	Euro–sterling	GBP/EUR
EURCHF	Euro–Swiss	CHF/EUR
GBPJPY	Sterling–yen	JPY/GBP
EURCAD	Euro–Canada	CAD/EUR
CADJPY	Canada–yen	JPY/CAD

Changes in Exchange Rates

Currency Cross Rates

A **cross rate** is an exchange rate between two currencies that is derived from each currency's relationship with a third currency.

Example: Cross Exchange Rates and Percentage Changes

A trader is quoted the following exchange rates:

	Spot Rate	Expected Spot Rate in One Year
EUR-USD	1.3804	1.3720
GBP-USD	1.5784	1.5698
USD-JPY	76.83	76.70

Calculate:

1. Spot EUR-JPY cross rate
2. Spot EUR-GBP cross rate
3. By what percentage is the USD expected to appreciate/depreciate against the GBP?
4. By what percentage is the USD expected to appreciate/depreciate against the JPY?
5. List the currencies from strongest to weakest based on their expected performance over the coming year.