

Exchange Rate Lab

Nations choose to price products based on a specific currency. Selling products or services across nations requires converting between currencies.

Many exchange rates today are floating rates and change on a constant basis. Some rates are relatively fixed, such as the rates within the Euro zone, others are tied to major currencies, such as China's link to the U.S. dollar. These currencies are periodically revalued in response to underlying economic conditions.

Individuals, speculators, and businesses can buy and sell currencies much like any other commodity. Several companies provide current and historical exchange rate data. One that is relatively complete and free is Oanda. Also check out www.oanda.com/convert/fxaverage, and www.oanda.com/products/fxmap/fxmap.shtml.

When dealing with currency conversions, always write down the labels and use those to monitor the final currency.

For example, $1.56 \text{ USD} = 1 \text{ EUR}$ can be written: $\frac{1.56 \text{ USD}}{1 \text{ EUR}}$

To find the number of dollars needed to obtain 150 Euros,

$$150 \text{ EUR} \frac{1.56 \text{ USD}}{1 \text{ EUR}} = 234.0 \text{ USD}$$

The EUR terms divide out, leaving you with USD.

Many exchange rates are priced in terms of major currencies. Sometimes you need to convert into a major currency first and then transfer into the final desired currency. It is critical to keep the labels to reduce mistakes. A mistake in exchange rate conversions could result in a cost of millions or billions of dollars.

41.039 THB/1 EUR

5,429 KHR/ 1 EUR

5,000 THB = ?? KHR

$$5,000 \text{ THB} \frac{1 \text{ EUR}}{41.039 \text{ THB}} \frac{5429 \text{ KHR}}{1 \text{ EUR}} = 661,444 \text{ KHR}$$

Lab Assignment

Look up current exchange rates, but use a spreadsheet to make the following conversions:

1. 5,000 USD to EUR
2. 60,000 AUD to USD
3. 150 CNY to EUR
4. 2,000 BRL to CZK through the Euro
5. 350 NZD to GBP through JPY

Note: The European standard requires using 5 decimal digits for exchange rates.