

Exchange Rates

Converting between currencies

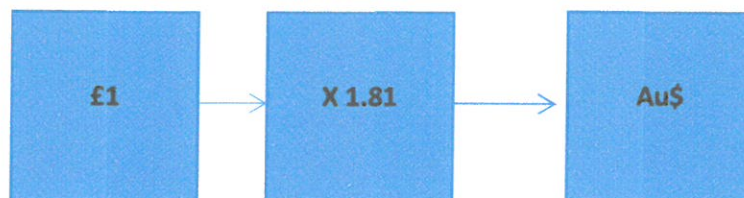
- International currencies are bought and sold by investors and speculators.
- Their values fluctuate based on political and economic situations in the country and around the world.
- For example, at the moment uncertainty over Brexit means that investors don't want to invest in the British £ so it has a weak exchange rate. Conversely, the USA economy is booming so investors want to buy the US \$, which means it is more expensive to buy them.
- There are pro's and con's to a weak exchange rate. It is good for tourism as a foreign tourist coming to the UK can buy more of them for their currency so what they spend here is relatively cheap. It is bad for UK manufacturers who buy parts or components from foreign companies as these become more expensive.
- These fluctuations also affect how much travellers and holiday makers pay for their foreign currencies.
- When you go to a bank, post office or large supermarket to buy currency the exchange rate is displayed in the form of how much £1 will buy you.

Currency	We buy at	We sell at
EURO	1.3153	1.1982
U.S.A	1.7791	1.6224
AUSTRALIA	2.6988	2.4034
CANADA	2.0738	1.8519
CZECH REPUBLIC	3.3219	2.9100
JAPAN	176.86	15.797
MEXICO	24.882	21.530
SOUTH AFRICA	16.896	14.968
SWITZERLAND	2.0164	1.8023
TURKEY	26.021	22.717

Other currencies available upon request

- As you can see in the above table currencies are often bought and sold at different rates, when selling you euros $\text{£}1 = \text{€}1.1982$, when buying them from you $\text{£}1 = \text{€}1.3153$.

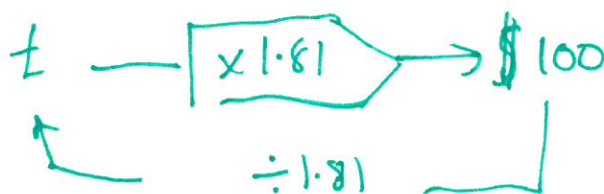
- This is how the vendors make money on the transactions. See eg2 below.
- Consider buying Australian dollars; the current exchange rate is £1 = Au\$1.81



- You might want to spend £100 on Au\$

$$£100 \times 1.81 = \$181$$

- Alternatively you might want to buy Au\$100



$$100 \div 1.81 = £55.25$$

- So when you are converting *from £ to the other currency* you will *multiply by* the exchange rate.
- When converting *from the other currency to £* you will *divide by* the exchange rate.

Examples

1. Logan is travelling to Turkey on holiday and wishes to buy £750 of Turkish Lira. The exchange rate at Tesco is £1 = ₺7.7202, how much Turkish lira can he buy?

$$£ \rightarrow \boxed{\times 7.7202} \rightarrow ₺$$

$$750 \times 7.7202 = ₺ 5790.15$$

Unfortunately, Tesco only have ₺100 notes. How much is he able to buy and what will this cost him?

Most he is able to buy is ₺5700

$$\begin{aligned} \text{This will cost } & 5700 \div 7.7202 \\ & = £738.32 \end{aligned}$$

2. Tracy has just spent £200 on euros in a supermarket for a trip she is making next week. Whilst she is completing her shopping in the supermarket she takes a call telling her the trip has been cancelled, so she decides to exchange the euros back to pounds. How much money has she lost?

Tesco buys @ £1 = 1.3153

Tesco sells @ £1 = 1.1982

$$\text{So she buys } £200 \times 1.1982 = €239.64$$

$$\text{When she returns the money } = 239.64 \div 1.3153$$

$$\text{What is the percentage loss? } = £182.19$$

$$\text{So she has lost } 200 - 182.19 = £17.81$$

$$\frac{17.81}{200} \times 100 = 8.9\%$$

3. Cassidy is planning a holiday where she will spend a week in San Francisco before travelling onwards to Tokyo. She has saved £1000 to spend, half in the USA and half in Japan. She can't decide whether she is better off buying £500 of US\$ and £500 of Japanese Yen (¥) before she leaves or changing all the money into \$ and then changing half of these into yen in San Francisco.

The exchange rates are: £1 = \$1.31, £1 = ¥148.58, \$1 = ¥112.60

Showing your calculations, what would you advise Cassidy to do?

If she changes both in UK:

$$\cancel{£500} \quad £500 \times 1.31 = \$655$$

$$£500 \times 148.58 = ¥74290$$

If she changes all to dollars first

$$£1000 \times 1.31 = \$1310$$

half of which she changes into ¥

$$\$655 \times 112.60 = ¥73753$$

I would advise to change both before she leaves UK.