

Topic 8: Using money abroad and foreign exchange calculations

After completing this topic, you will be able to:

- explain what a 'currency' is;
- explain what 'foreign exchange', or 'currency swapping', is;
- define and explain:
 - 'variable exchange rates'; and
 - 'commission';
- know where to exchange money;
- use the following terminology:
 - types of currency, including the 'euro', 'dollar' and 'sterling';
 - 'travellers' cheques';
 - 'bureau de change';
 - 'commission'; and
 - 'exchange rate';
- understand foreign exchange rate risk; and
- explain how to use cards abroad.

What is a currency?

A currency is a unit of money used by all of the people within a country to buy and sell goods and services, to save and to borrow. It is the money that circulates among the people in that country, and it measures the value of everything that they earn and own. Each country's currency has a different name, symbol and value.



The euro

Currently, the euro is the legal tender currency used in 19 of the 28 countries that make up the European Union. Collectively, these countries are known as the 'euro area' (or 'eurozone'). The euro is also used in Montenegro and Kosovo, and four 'micro states' (Andorra, Monaco, San Marino and Vatican City). So, in total, the euro is used in 25 countries / states, but not in the UK. So if someone comes to the UK from France with euros, they will have to change these into pounds (known as 'sterling').

The sign for a euro is '€'. The name 'euro' derives quite simply from the word 'European'.

The US dollar

The currency in the USA is the US dollar (USD). The sign for a dollar is '\$'. A lot of other countries use the name 'dollar' for their currency – for example, Australia, Canada, Jamaica and Singapore – but they are all different currencies, so you have to be careful when you talk about 'dollars' to define which dollar you mean.

Did you know?

The name 'dollar' comes from a German word *thaler*, which was short for *Joachimsthaler*, a coin from the silver mines in Joachimsthal in Bohemia.

The dollar sign '\$' is thought to have originated from the old Mexican peso, which was written as 'P^S'. People started to write the 'S' over the 'P' and, in the end, the round part of the 'P' disappeared, leaving only the vertical line going through the 'S'.



The pound sterling

The pound sterling is the official name for the British pound, which is the currency of the UK, Jersey, Guernsey and the Isle of Man. The full official name 'pound sterling' is mainly used to distinguish the UK currency from others such as the Egyptian pound and the Lebanese pound.



Activity 8a

Find out the currencies for the following countries.

Country	Currency
Argentina	
China	
Denmark	
India	
Ireland	
Nigeria	
Poland	
Russia	
South Africa	
Switzerland	
Turkey	

Exchanging currencies

If you go to visit another country, you will want to buy things there and also to pay hotel bills, and to buy food and drinks, and souvenirs. This means that you will need the currency of that country. You will get hold of this by swapping or exchanging sterling for another currency: for a visit to France, for example, you will need to buy euros.



Exchange rate

The 'exchange rate' is the price for buying or selling the different currencies.

Exchange rates between currencies are changing all of the time. There are markets in currencies and, every day, thousands of people sell one currency and buy another. The exchange rate between two currencies depends on how many people are buying and selling them.

Popular currencies have a high exchange rate (that is, it will cost you more in pounds to buy that currency) and not-so-popular currencies have a low exchange rate (that is, you will get more of that currency for your pounds).



Case study

Seb is going to France, so he will have to buy euros. He can get them from a bank or a currency exchange office (called a 'bureau de change') – even sometimes from a hotel reception desk. He will see behind the counter a notice telling him the rate for *selling* euros to him.

When he returns from his holiday, Seb has some euros left over in his wallet that he can then sell to a bank. Now he wants to know the bank's *buying* rate.



Calculating currency exchanges

When you go into a bank to buy a foreign currency, the bank will tell you the exchange rate for that currency. It is telling you the rate that it will *sell* that currency to you. You are *buying* and the bank is *selling*.

You can calculate the price of buying that currency as:

$$\text{Amount of sterling} \times \text{Exchange rate} = \text{Price of buying the currency}$$



Case study

A bank may be *selling* euros at a rate of 1.18. This means that you will get €1.18 for each £1 that you exchange.

So, if you have £100 to exchange into euros, you *multiply* the euro rate by the number of pounds that you want to exchange:

$$1.18 \times 100 = \text{€}118$$

You will get €118 for your £100.



Case study

You want to exchange £200 into US dollars. The bank is *selling* US dollars at a rate of 1.52. This means that you will get US\$1.52 for each £1 that you want to exchange.

$$1.52 \times 200 = \text{US\$}304$$

You will get US\$304 for your £200.

Did you know?

Rates can change between the time at which you buy and the time at which you sell a currency.

If you have currency left over after your trip abroad and you want to swap it back to sterling, you will take it to the bank and ask the bank to *buy* the currency back from you. This time, you are *selling* and the bank is *buying*.

If you look at the notice board outside any bank or bureau de change, you will see two columns.

Currency	Sell rate	Buy rate
euro	1.2939	1.4788
US dollars	1.4714	1.6765
Australian dollars	1.9001	2.1851
Chinese yuan	8.7076	10.7466
Danish kroner	9.5023	10.8382
Hong Kong dollars	11.2673	12.8106



Case study

You have €180 left over from your holiday in France. You want your bank to *buy* them back from you (the bank is *buying* and you are *selling*). The bank's buying rate for euros that day is 1.26.

This time, you *divide* the number of euros that you have by the exchange rate:

$$€180 \div 1.26 = £142.86$$

You will get £142.86 for your €180.





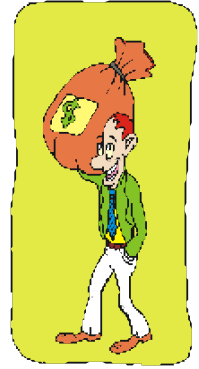
Case study

You have US\$800 that you want to exchange back into sterling. The bank's buying rate for US dollars is 1.75.

You divide the number of dollars by the exchange rate:

$$\text{US\$}800 \div 1.75 = \text{£}457.14$$

You will get £457.14 for your US\$800.



Activity 8b

a) Suppose that you want to exchange £50 into euros when the price of the euro is £1 = €1.15. How many euros will you get? (Remember to multiply, because you are buying.)

b) You return from your holiday in the USA and have US\$30 in your pocket. You take your US dollars to the bank for it to buy them back from you. The rate at which the bank is buying dollars is 1.70. How many pounds sterling will you receive? (Remember to divide this time, because you are selling.)



Activity 8c

In pairs, make up some prices in euros or in US dollars and try to work out the amount that they would be in sterling.

Use exchange rates of:

- £1 = €1.16; and
- £1 = US\$1.45

How quickly can you do exchange calculations?

How banks and foreign exchange bureaux make money

Charging a different exchange rate for buying and selling a particular currency is how the banks make money out of foreign exchange.



Case study

Imagine that you swap £1,000 into euros with your bank and then, later on the same day, you swap the euros back into sterling at the same bank. The bank's buy rate is 1.30 and its sell rate is 1.13.

The bank sells you the euros at 1.13:

$$£1,000 \times 1.13 = €1,130$$

The bank buys the euros back at 1.30:

$$€1,130 \div 1.30 = £869.23$$

The bank has made a profit of:

$$£1,000 - £869.23 = £130.77$$

Commission

Another way in which a bank or bureau de change will cover its costs and make a profit is by charging commission. Commission can be charged when you change currencies (both when buying and when selling back) and this reduces the amount of money that you get.



Case study

If you look at the example earlier, in which we changed £200 into US dollars, the bank might take 2 per cent commission on the transaction.

This would be calculated as:

$$2\% \times \text{US\$}304 = \text{US\$}6.08$$

So you will actually get only:

$$\text{US\$}304 - \text{US\$}6.08 = \text{US\$}297.92$$

When you are abroad, be careful of bureau de change kiosks, because they usually charge a high commission.

Using money in different countries

When you go to another country, you have to find out what currency is used there. There are three main ways of making sure that you will have the local currency to spend when you arrive:

- buy notes and coins in that currency;
- buy travellers' cheques; and/or
- use a plastic card while you are abroad.



Buying cash

You can buy notes and coins in foreign currencies either in the UK before you go or you can wait until you arrive. You pay with sterling and receive the currency that you need. You can buy most major foreign currencies at a bank, at a main Post Office, at some large shops (such as Marks & Spencer) or at money-changing offices. It is useful to get hold of some notes and coins before you go, so that you can get used to the different look of the money and feel better prepared.

Holding cash is very flexible, because you can spend it anywhere – but it is not safe to carry too much at once. It is a good idea to keep checking the exchange rate of the currency that you want to buy to see if you can buy it when the exchange rate is lower. In that way, you will get a little more of that country's currency for your sterling.

Buying travellers' cheques

You can buy special travellers' cheques, either in sterling, or in a currency such as the euro or the US dollar. They are pieces of paper that are worth specific given amounts, such as £20, £50 or £100. They are issued in your name and each cheque has an individual serial number. When you buy the cheques, you sign them all and you are given a list of the numbers of each one.



Once you have arrived at your destination, you can exchange them at a bank or at your hotel for the local currency equivalent of the value of each cheque. You are asked to sign the cheque again and the bank clerk compares your two signatures with each other – to safeguard against anyone else trying to cash your cheques.

Although they are not as flexible as holding actual cash that you can spend anywhere, travellers' cheques are safer, because if you lose them or they are stolen, you can report the numbers of the missing cheques and they will be cancelled. You can then be issued with new cheques and you do not lose your money.

If you do not use all of your cheques, you can pay them back into your bank account when you come home or you can change them into sterling.

Using a plastic card abroad

Debit card

You can use your debit card abroad at automated teller machines (ATMs), and in shops and hotels. You will need to match up the symbol on your card with the ATM or the information in the shop. The symbols to look out for are Cirrus, MasterCard or Visa.

You will use the card with your personal identification number (PIN), just as in the UK.

The amount that you spend will be converted into sterling when it is debited to your bank account.

Credit card

If you have a credit card, you can use it anywhere showing the symbols for MasterCard or Visa. You use it in the same way as you would use the card in the UK.

Any amounts that you spend will be included in your next credit card statement.

The amount in currency will have been converted into sterling by the credit card company.



Prepaid cash card

A prepaid cash card is pre-loaded with cash and then used to withdraw the money at an ATM or to make purchases. Once all of the pre-loaded money has been spent or withdrawn, the card cannot be used again until more money is loaded onto it. The rate of exchange used is that on the day the card is loaded with credit, not when the card is used to buy goods or services; so currency fluctuations may mean the holder gets a worse deal (or a better one). This type of card is protected if stolen.

Prepaid cash cards are a good idea for holidays, because you do not have to carry currency around. They are also useful for people who tend to overspend while shopping.

Where to exchange money abroad

When you arrive in a different country, you may need to change some money. You can usually do this at the reception desk of the hotel at which you are staying, but it might not give you the best exchange rate. It is usually better to find a bank or a foreign exchange office.

Bureau de change

You will see the French name 'bureau de change' all over the world, including the UK, to describe a place where you can change money.

Did you know?

Each country also has its own word for bank and foreign exchange, as illustrated below.

English	bank	foreign exchange
French	<i>banque</i>	<i>change</i>
German	<i>Bank</i>	<i>Wechsel</i>
Italian	<i>banco</i>	<i>cambio</i>
Spanish	<i>banco</i>	<i>cambio</i>
Greek	Τράπεζα (Trapeza)	Συνάλλαγμα (Synallagma)

Changes in variable exchange rates

We looked above at how rates can change for day to day, because of the trade in foreign currency markets – but rates can also be different from different providers. If you have some money to change, it is a good idea to look around and try to get the best rate available.



Activity 8d

You are in Houston, Texas, and have £80 in cash that you want to exchange for US dollars.

You look around and see a bank that is displaying the following notice:

We buy £ at US\$1.75

Just down the street, you see a bureau de change. Its notice says:

We buy £ at US\$1.71

a) Which should you choose? Demonstrate your reasoning with a calculation.

b) Try the same calculations with £8,000 – a figure for which the choice will really matter.

Did you know?

Notice that if you were to have bought your dollars in the UK before you went to Texas, you would be going into a *UK bank* and asking at what rate it will *sell* dollars to you. You would be looking for the 'sell rate' for dollars.

In this example, you are in the USA, trying to get the *US bank* to *buy* your sterling from you in exchange for some dollars. So you will be looking at the 'buy rate' for sterling.



Activity 8e

William has saved £100 for his holiday in Spain and he needs to buy euros. He looks in the newspaper and sees that the exchange rate is $£1 = €1.16$.

- a) How much will he get for his £100?



A few days later, William goes to the Post Office to change his sterling into euros and he is given €120. He asks the clerk if she has made a mistake and she tells him that the pound has gone up against the euro and that the price is now $£1 = €1.20$. (In other words, sterling has strengthened and is now worth €1.20 instead of €1.16.) He has gained €4.

At the end of his holiday, William has €12 left and, when he gets back to the UK, he wants to change the euros back into sterling.

- b) If William expects to get £10 for the €12, what must he expect the exchange rate to be?

When he goes to the Post Office, the clerk tells William that sterling has gone up again to $£1 = €1.30$.

- c) How much does she give him in exchange for his leftover €12?

Exchange rate risk

In the activity above, sterling went up twice against the euro. William gained when he was holding sterling and buying euros, but lost when he was holding euros and buying pounds.

William has discovered that exchange rates can change: he benefited when he went on holiday and lost out when he came back.

When we are exchanging small amounts, this is annoying and we may think that we have lost money. If the amounts are larger, however, then you may think about delaying before changing the currency back into sterling.



Activity 8f

Dylan and his friends are planning to go to Ibiza. They want to go clubbing three nights during the holiday. They have been told that the cost of club entry is €50 per night, so Dylan goes to his bank and changes enough money into euros to pay for his club entry.

- a) Calculate for Dylan the cost of €150, using an exchange rate of 1.20.**



Dylan also gets £125 worth of travellers' cheques to take with him. When he gets to Ibiza, he changes his travellers' cheques and finds that the rate is £1 = €1.14.

- b) How much does Dylan get in euros?**

The shortfall in the activity above is an example of 'exchange rate risk' – that is, the possibility that the cost of something bought abroad might increase as a result of changes in exchange rates.



Dylan will think that this is annoying and he may change his plans – but do you think that there is anything that he might have done to prevent it?



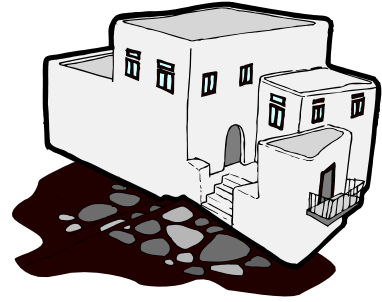
Can you think of an event that might mean Dylan will have more money to spend?

Exchange rate risk is more important if the item to be bought is expensive.



Activity 8g

Dylan's parents like Spain so much that they have decided to buy a holiday home there. The cost is €100,000 and it has to be paid in three months' time. Dylan is worried that the same thing might happen to his parents as happened to him and that the property might end up being more expensive.



- a) Work out how many pounds sterling the villa will cost if the exchange rate is $£1 = €1.21$. Then work out how many pounds sterling the villa will cost if the exchange rate is $£1 = €1.13$. What is the difference between the two?

- b) Is Dylan right to be worried?

Using a special exchange rate is one way in which we can remove exchange rate risk. Businesses use this method a lot if they are buying and selling overseas.



Case study

Dylan's parents can go to their bank and arrange a special exchange rate to buy €100,000 in three months' time. The rate may not be as good as the current rate of $£1 = €1.11$, but it will mean that they have a guaranteed rate and that they can do all of their sums knowing what the exchange rate is.



Review questions

1. How many countries use the euro as their legal tender currency?
2. Where can you buy foreign currencies in the UK?
3. Why are travellers' cheques safer than cash? What is the disadvantage of buying travellers' cheques?
4. Tim is on holiday in Italy, where the currency is the euro. He has been shopping and has seen some items that he would like to buy. Their prices are in euros, but he wants to know how much they would be in sterling. Can you convert these prices into sterling for Tim (using an exchange rate of $\text{£}1 = \text{€}1.18$)?
 - a) Playstation game: $\text{€}40$
 - b) T-shirt: $\text{€}15.50$
 - c) Model of the Leaning Tower of Pisa: $\text{€}4.75$
 - d) Ice cream: $\text{€}2$
5. Andrew is going to the USA on holiday. He has saved $\text{£}80$.
 - a) How many US dollars will he get when he changes his money into that currency? (The exchange rate is $\text{£}1 = \text{US\$}1.52$.)
 - b) Andrew has now been on holiday and has come back with $\text{US\$}5$. How many pounds will he get when he changes the dollars back into sterling? (The exchange rate remains the same.)

Learning activities



Internet

Visit the website of one of the major banks, such as www.hsbc.co.uk, www.lloydsbank.com or www.rbs.co.uk, and find information about the services that it provides for people who want to buy foreign currencies.

- How many currencies can it sell you?
- How much notice do you have to give?
- How much does commission cost?



Group

Visit the banks listed above and compare their exchange rates for the following currencies:

- the euro;
- Swiss francs;
- Egyptian pounds;
- Japanese yen;
- New Zealand dollars;
- Saudi Arabian riyals;
- Swedish krona; and
- UAE dirhams.



Individual

Earlier in this topic, you were shown a table of 'sell' and 'buy' rates for the euro, US dollar, Australian dollar, Canadian dollar, Chinese yuan, Danish kroner and the Hong Kong dollar. Practise changing different amounts of sterling (£) into the various currencies and back again to see how much the bank or bureau de change would make out of each transaction.

- For example, the 'sell' rate for the US dollar is 1.5002, so for £1,000, you would get US\$1,500.20.
- The bank will buy the dollars back off you at a rate of 1.7094, so you would get:

$$\frac{\text{US\$1,500.20}}{1.7094} = \text{£877.62}$$



Key points for Topic 8

You should now understand:

- what a 'currency' is;
- what is meant by 'foreign exchange' or 'currency swapping';
- the effects of exchange rates varying over time, between providers, and between buying and selling rates;
- where you can exchange money;
- what is meant by 'commission' and its effect on a foreign exchange transaction;
- how to work out foreign exchange calculations;
- how to use plastic cards abroad;
- what is meant by 'travellers' cheques'.