Now let us assume that the demand function for the pesho changes to:

$Q_D = 3600 - 400P$

5 Explain **two** factors that might have caused the change in the demand function.

6 Make a new table to show the demand schedule for the new demand function, when exchange rates are \$0, \$1, \$2, \$3, \$4, and \$5.

7 Add the demand curve that represents the new schedule to the diagram that you drew in 2.

8 Illustrate the new equilibrium exchange rate.

9 Explain the likely effect that the change in the exchange rate will have on the demand for exports and imports in country X.

END OF CHAPTER REVIEW QUESTIONS

(To help explain, it would be useful to pick a country and its currency to use in your answers.)

1 With the help of a diagram, explain **three** factors that would cause a currency to appreciate in value.

2 With the help of a diagram, explain the likely effects of a high rate of inflation on a country's currency.

3 Discuss the consequences of a depreciation of a country's currency on the country's economy.

4 Discuss the relative advantages and disadvantages of a floating exchange rate system with a fixed exchange rate system.

Assessment advice

In your examinations the questions on international economics will primarily be found in paper 2, the data response paper.

However, the models covered in this chapter are microeconomic models, as they deal with the markets for individual currencies. Therefore, you could be asked a question on these in the microeconomic section of paper 1.

You be the journalist

Headline: Government tells complaining manufacturers to face reality—it will take no action to bring down the currency

Economics concept: Exchange rates

Diagram: Exchange rate diagram to show what the government could do

Hints: Choose a country to set the article in and explain why the manufacturers in that country might be "complaining". Show what they would like the government to do. Suggest what the government might expect the manufacturers to do.

24 Balance of payments

By the end of this chapter, you should be able to:

- define and explain the balance of payments account
- define and explain the current account
- define and explain the elements that make up the current account
- define and explain the capital account
- define and explain the elements that make up the capital account
- understand that the current account balance is equal to the sum of the capital account and financial account balances
- HL calculate elements of the balance of payments from a set of data
- HL explain how imbalances in the current account of a country may have effects on the exchange rate of a country's currency
- HL explain the implications of, and methods to correct, persistent current account imbalances
- HL define, explain, and give examples of expenditure-switching policies
- HL define, explain, and give examples of expenditure-reducing policies
- HL define and explain the Marshall-Lerner condition
- HL define, explain, and illustrate the J-curve effect.

The balance of payments account

The balance of payments account is a record of the value of all the transactions between the residents of one country and the residents of all other countries in the world over a given period of time. This period is usually one year, although monthly balance of payments accounts are also produced. There are two main parts to the balance of payments account—the current account and the capital account.

Any transaction that leads to money entering the country from abroad is known as a credit item in the balance of payments and is given a positive value. Any transaction that leads to money leaving the country to go abroad is known as a debit item in the balance of payments and is given a negative value.

Note that there are many different names used to identify the various parts of the balance of payments account in different parts of the world. The headings change from country to country and even from time to time within the same country. In order to avoid confusion, and for consistency, for the purpose of the IB curriculum and assessment, a set structure (and components) of the balance of payments is laid down and that structure will be followed in this chapter. The complete structure is given on page 308.

The current account

The current account is a measure of the flow of funds from trade in goods and services, plus other income flows. It is usually sub-divided into four parts.

1 The balance of trade in goods

The balance of trade in goods is also variously known as the visible trade balance, the merchandise account balance, or simply the balance of trade. It is a measure of the revenue received from the exports of tangible (physical) goods minus the expenditure on the imports of tangible goods over a given period of time. It includes trade in all tangible goods, from airplanes to chickens.

Exports occur when an international transaction relating to goods or services leads to an inflow of money into the country. Imports occur when an international transaction relating to goods or services leads to an outflow of money from the country.

When export revenue is greater than import expenditure then we say that there is a surplus on the balance of trade in goods. When import expenditure is greater than export revenue then we say that there is a deficit on the balance of trade in goods.

2 The balance of trade in services

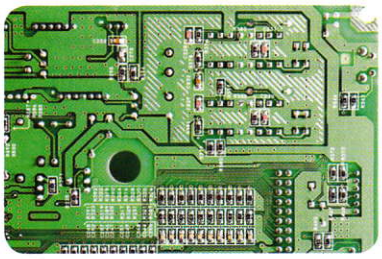
The balance of trade in services is also known as the invisible balance, the services balance, or net services. It is a measure of the revenue received from the exports of services minus the expenditure on the imports of services over a given period of time. It includes the import and export of all services such as banking, insurance, and tourism. For example, an Italian tourist on holiday in Vienna would be spending money that represents an invisible export to the Austrian economy (money coming in) and so an invisible import to the Italian economy (money going out).

Student workpoint 24.1

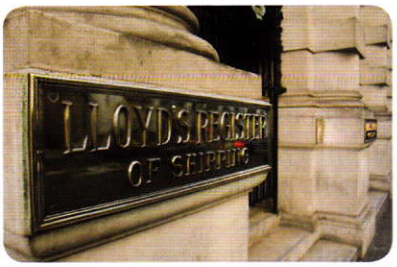
Be a thinker

Identify whether each of the following elements represents an invisible import, a visible import, an invisible export, or a visible export on the UK current account.

1 UK computer manufacturers buy semi-conductors from Malaysia.



2 Lloyds of London sells insurance to Chinese shipping companies.



3 Canadian football fans buy tickets to a Manchester United game.

4 British football fans attending the World Cup 2010 stay in hotels in South Africa.

5 France buys North Sea natural gas from UK companies.

3 Income

This is often known as net investment incomes (net factor income from abroad). It is a measure of the net monetary movement of profit, interest, and dividends moving into and out of the country over a given period of time, as a result of financial investment abroad.

Domestic firms may have set up branches in other countries and any profits being repatriated will count as a positive item in this account. In the same way, profits sent out of the country by foreign firms set up within the country will count as a negative item.

Residents and institutions in the country may have invested in banks and other financial institutions in other countries and any interest received from these financial investments will count as a positive item. In the same way, any payment of interest to foreign investors that leaves the country will count as a negative item.

Residents and institutions may have purchased shares in foreign companies and any dividends received from those companies will count as a positive item. In the same way, any dividends paid by domestic firms to foreign shareholders will count as a negative item.

4 Current transfers

This is a measurement of the net transfers of money, often known as net unilateral transfers from abroad. These are payments made between countries when no goods or services change hands. At a government level these payments include things such as foreign aid and grants. At an individual level they include foreign workers sending money back to their families in their home country (remittances) or private gifts sent from a person in one country to a person in another.

Current account balance = Balance of trade in goods + Balance of trade in services + Net income flows + Net transfers

Note that any of these accounts might be in surplus or deficit at any given time—there could be a deficit on the trade in goods, a surplus on the trade in services, a surplus on net income flows, and an overall surplus on the current account. The current account balance is an overall balance and may be in deficit or in surplus.

DID YOU **KNOW?**

"Remittances, funds received from migrants working abroad to developing countries, have grown dramatically in recent years from US$18 billion in 1980 to over US$300 billion in 2008. They have become the second largest source of external finance for developing countries after foreign direct investment (FDI), both in absolute terms and as a proportion of GDP. Furthermore, unlike other capital flows, remittances tend to be relatively stable even during periods of economic downturns and crises."

Source: *The World Bank—Finance Research*

The capital account

The capital account is a relatively small part of the balance of payments accounts and does not have a significant effect on the balance. The capital account has two components.

- *Capital transfers:* a measure of the net monetary movements gained or lost through actions such as the transfers of goods and financial assets by migrants entering or leaving the country, debt forgiveness, transfers relating to the sale of fixed assets (tangible assets that firms own and use in production that have a useful life of at least one year), gift taxes, inheritance taxes, and death duties.

- *Transactions in non-produced, non-financial assets:* consisting of the net international sales and purchases of non-produced assets, such as land or the rights to natural resources, and the net international sales and purchases of intangible assets, such as patents, copyrights, brand names, or franchises.

The financial account

The financial account measures the net change in foreign ownership of domestic financial assets. If foreign ownership of domestic financial assets increases more quickly than domestic ownership of foreign financial assets, then there is more money coming into the country than going out, and so there is a financial account surplus. In the same way, if domestic ownership of foreign financial assets increases more quickly than foreign ownership of domestic financial assets, then there is more money going out of the country than coming in, and so there is a financial account deficit.

The financial account has three components.

- *Direct investment:* a measure of the purchase of long-term assets, where the purchaser is aiming to gain a lasting interest in a company in another economy. It includes things such as the buying of property, the outright purchasing of a business or the purchasing of stocks or shares in a business. In all cases, the asset is expected to have a positive return in the future, by making profits or by increasing in value over time. The investment does not have to be paid back and there is no guarantee that it will provide a positive return. The buyer of the asset is taking a risk.

  Much of the activity in this category is in the form of foreign direct investment (FDI, investment by multinational corporations in another country). International Monetary Fund (IMF) guidelines state that an investment in a firm is FDI if it accounts for at least 10% of the ownership of the company. However, many countries set a higher percentage of ownership for an investment to count as FDI.

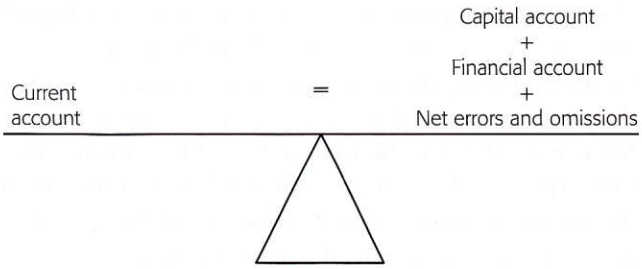
- *Portfolio investment:* a measure of stock and bond purchases, which are not direct investment since they do not lead to a lasting interest in a company. They tend to consist of the buying and selling of things such as treasury bills and government bonds. We will also include savings account deposits in this category, although in many countries that comes under the heading of "other investment".

  In all the portfolio investments mentioned above the investor is putting forward the money in order to purchase the asset, in the expectation that interest will be paid on the investment and that the money will be repaid at a given point in time. These assets are simply borrowing and lending on the international market.

- *Reserve assets:* the reserves of gold and foreign currencies which all countries hold and which are itemized in the official reserve account. It is movements into and out of this account that ensure that the balance of payments will always balance to zero. If there

is a surplus on all of the other accounts combined, then the official reserve account total will increase. If there is a deficit on all of the other accounts combined, then the official reserve account total will decrease. It is net changes in the official reserve account, over the period of time being considered, that balances the accounts.

In reality, the balance of payments accounts will not actually balance. This is because there are simply too many individual transactions taking place for the measurement to be exact. There will always be some transactions that have not yet been recorded when the figures are being put together. To resolve this, a balancing item, which we will call "net errors and omissions" is put into the accounts to ensure that they do, in fact, balance. As time goes by and trading accounts are revised over the years, more data comes to light and the balancing item invariably gets smaller.



A selection of the balance of payments figures for the USA, from 2007 to 2009, are shown in Table 24.1. They illustrate the way that balance of payments accounts are made up.

We can see that in all three years there was a large deficit on the current account balance. Although the balance of trade in services was positive in every year, the balance of trade in goods was negative in every year and the net income flows were negative in 2007 and 2009.

In the USA there is a slight difference in method, since, as well as having a capital account and a financial account figure, there is also a separate figure for net trade in financial derivatives. In the IB model this would be included in the financial account. However, the process still works. If all changes in asset ownership are totalled and allowance is made for the balancing item (in the US it is called statistical discrepancy), then the total capital account balance should be the opposite of the current account balance and the balance of payments should sum to zero. This is the case in all three years in the example. In the USA net changes in the official reserve account are included in the financial account and so the accounts balance.

Line	US balance of payments figures [millions of dollars] (Credits +; debits −) Current account	2007	2008	2009
1	Exports of goods	1 160 366	1 304 896	1 068 499
2	Imports of goods	−1 983 558	−2 139 548	−1 575 443
3	**Balance of trade in goods (lines 1 + 2)**	−823 192	−834 652	−506 944
4	Exports of services	488 299	534 116	502 298
5	Imports of services	−367 206	−398 266	−370 262
6	**Balance of trade in services (lines 4 + 5)**	121 093	135 850	132 036
7	Income receipts (*investment income*)	829 602	796 528	588 203

8	Income payments (*investment income*)	−730 049	−644 554	−466 783
9	**Net income receipts (lines 7 + 8)** (*net investment income*)	99 553	151 974	121 420
10	**Unilateral current transfers, net**	−115 548	−122 026	−124 944
11	**Net income flows (lines 9 + 10)**	−15 995	29 948	−3 524
12	**Current account balance (lines 3 + 6 + 11)**	**−718 094**	**−668 854**	**−378 432**
13	**Capital account**			
14	Capital account transactions, net	384	6 010	−140
15	**Financial account**			
16	US-owned assets abroad, net (financial outflow)	−1 475 719	156 077	−140 465
17	Foreign-owned assets in the USA, net (financial inflow)	2 107 655	454 722	305 736
18	Financial derivatives, net	6 222	−32 947	50 804
19	Statistical discrepancy	79 552	84 992	162 497
20	**Capital and financial account balance (lines 14 + 16 + 17 + 18 + 19)**	**718 094**	**668 854**	**378 432**

Source: *Bureau of Economic Analysis (BEA), US Department of Commerce*

Table 24.1 US balance of payments statistics 2007–09

Table 24.1 shows that the USA is experiencing persistent current account deficits (line 12), although there has been a significant reduction in the size of the deficit over the three years. The USA has deficits on the trade in goods balance (line 3) that are not balanced by the surpluses on the trade in services balance (line 6) or the net income flows (line 11). The current account deficit is largely financed by the foreign-owned assets in the USA (line 17). You can see that the current account balance (line 12) is equal to the capital and financial account balance (line 20).

The US economy entered a recession in 2008. One result of this was the significant fall in the demand for imports of goods, and to some extent services, that took place in 2009. This illustrates the link between growth in the economy and the state of the current account introduced earlier. However, the trade gap is still large and implies that the US economy is borrowing heavily from abroad in order to finance its current international expenditure.

The relationship between the current account and the exchange rate

A deficit in the current account of the balance of payments may result in downward pressure on the exchange rate of the currency. This is more of a problem in a fixed exchange rate system than in a floating exchange rate system. In a fixed exchange rate system, the implication is that the exchange rate has been set at too high a value.

Student workpoint 24.2

Be a thinker

Using the correct terminology and actual numbers, describe the US balance of payments position in 2009, as shown in Table 24.1. Consider each of the components of the balance of payments, using real numbers to explain whether each is in surplus or deficit. Explain how the balance of payments as a whole is balanced.

In the short run, the deficit may be covered by increases in the capital and financial accounts or by the government using reserve assets to balance the accounts. However, this cannot go on indefinitely, since the reserve assets will run out and so, in the end, the exchange rate will need to be depreciated.

In a floating system, the deficit implies that there is an excess supply of the currency on the foreign exchange markets. This may be because the demand for exports has fallen, as has the demand for the currency, or the demand for imports has increased, leading to more demand for foreign currencies and so a greater supply of the domestic currency on the foreign exchange markets. In either case, in a freely floating exchange rate system, the exchange rate should fall, improving the competitiveness of the country's exports and increasing the domestic price of imports.

In the same way, a surplus in the current account of the balance of payments may result in upward pressure on the exchange rate of the currency. In a fixed exchange rate system the implication is that the exchange rate has been set at too low a value. In the short run this may be offset by deficits on the capital and financial accounts or by increases in the reserve assets. In the long run, however, it is likely that other countries will be unhappy with the artificially low exchange rate and will demand higher rates or will threaten protectionist measures against the country's exports. This has often been the case with the exchange rate of the Chinese currency, which is pegged to the US dollar, and China's trading partners.

In a floating system, the surplus implies that there is an excess demand for the currency on the foreign exchange markets. This may be because the demand for exports has risen, as has the demand for the currency, or the demand for imports has fallen, leading to less demand for foreign currencies and so a lower supply of the domestic currency on the foreign exchange markets. In either case, in a freely floating exchange rate system, the exchange rate should rise, decreasing the competitiveness of the country's exports and lowering the domestic price of imports.

HL The consequences of current account and capital account imbalances

The existence of a deficit or surplus in either the current or capital accounts is bound to have economic consequences that will affect the economy and we can consider some of these effects.

Consequences of a current account deficit

We know that if the current account is in deficit then the capital account will have to be in surplus in order to balance out the current account deficit. This means one of three things.

1 Foreign exchange reserves may be used to increase the capital account and so to regain balance with a deficit in the current account. If reserves are taken from the official reserve account then they are a positive entry into the capital account. However,

no country, no matter how rich and powerful, is able to fund long-term current account deficits from its reserves. Eventually, the reserves would run out.

2 It may be that a high level of buying of assets for ownership is financing the current account deficit. Foreign investors may be purchasing such things as property, businesses, or stocks or shares in businesses. In this case this inflow into the capital account is funding the current account deficit, but as it must be based upon foreign confidence in the domestic economy it is not considered to be harmful. However, there are sometimes fears that if foreign ownership of domestic assets were to become too great then this may be a threat to economic sovereignty. Moreover, if there is a drop in confidence then foreign investors might prefer to shift their assets to other countries. Selling the assets would result in an increase in the supply of the currency and a fall in its value.

3 It may be that it is financed by high levels of lending from abroad. If this is the case then high rates of interest will have to be paid, which will be a short-term drain on the economy and will further increase the current account deficit in years to come. There is also always the danger that the governments or people lending the money may, at some time, withdraw their money and place it elsewhere. This would lead to massive selling of the currency and a very sharp fall in the exchange rate.

Consequences of current and capital account surpluses

If the current account is in surplus, there may be other consequences.

1 A current account surplus allows a country to have a deficit on its capital account by building up its official reserve account or by purchasing assets abroad. However, one country's surplus is another country's deficit and it may lead to protectionism by other countries in order to attempt to reduce their own deficits.
2 A current account surplus usually leads to an appreciation of the currency on the foreign exchange market as it implies an increase in demand for the currency. This will make imports cheaper so reducing inflationary pressures, but will also make exports more expensive, which harms exporters.

Note that a capital account surplus, based upon the purchasing of assets for ownership, is mainly a positive thing for the country and allows a current account deficit. However, a capital account surplus based upon high levels of borrowing from abroad is the opposite and is normally a response to a current account deficit. This results in the concerns raised in point 3.

How big is a "big" current account deficit or surplus?

There are two ways to interpret the size of a country's current account deficit or surplus. One is to consider the value of the total—for example, the current account surplus in Germany is US$109.8 billion (2009) while the current account deficit in the US is US$380.1 billion (2009). However, it is easier to understand

the magnitude of the deficit if it is placed in the context of the country's GDP. This would be similar to understanding how much a person is in debt. A billionaire who owes US$1000 to a credit card company is in a very different situation to an unemployed student who owes US$1000. The burden of a deficit depends on the ability to pay. This is not so much a concern when a country has a current account surplus, although there are possible problems arising from the appreciation of the currency, but it is a problem when current account deficits reach a certain percentage of GDP. In the case of the US the current account deficit is currently approximately 5.3% of its GDP and for Germany it is approximately 6.6%.

Methods of correcting a persistent current account deficit

When attempting to correct a persistent current account deficit governments are able to adopt two types of policy.

Expenditure-switching policies

Expenditure-switching policies are any policies implemented by the government that attempt to switch the expenditure of domestic consumers away from imports towards domestically produced goods and services. If successful, then expenditure on imports will fall and so the current account deficit should improve.

Examples of this type of policy are:

- *Government policies to depreciate or devalue the value of the currency:* If the government adopts policies that will reduce the level of the exchange rate then exports should become less expensive and imports should become more expensive. Depending upon how responsive domestic consumers and foreign consumers are to these price changes, this should see an improvement in the current account as export revenue rises and import expenditure falls.
- *Protectionist measures:* The government may attempt to restrict the imports of products either by reducing their availability using embargoes, quotas, voluntary export restraints, and administrative, health and safety, and environmental barriers, or by increasing their prices using tariffs. If this happens then domestic consumers will switch their expenditure from imports to domestic products.

  However, governments are often reluctant or unable to use such measures because they tend to lead to retaliation and are often against WTO agreements. Also, protecting domestic industries reduces competition, which may encourage them to be inefficient. Therefore it is not a long-run solution.

Expenditure-reducing policies

Expenditure-reducing policies are any policies implemented by the government that attempt to reduce overall expenditure in the economy, so shifting AD to the left. If this occurs then expenditure on all goods and services should fall and, since this would include expenditure on imports, the current account deficit should improve. The size of the fall in imports will depend upon the level of the marginal propensity to import.

However, there is a conflict here between external and internal objectives. Deflating the economy may reduce the current account deficit but the policy is likely to lead to a fall in domestic employment and a fall in the rate of economic growth. This makes it a difficult decision for a government to make.

Examples of this type of policy are:

- *Deflationary fiscal policies:* Increasing direct tax rates and/or reducing government expenditure. Clearly, these would be politically unpopular and a government might be reluctant to use such a policy.
- *Deflationary monetary policies:* Increasing the rate of interest and/or reducing the money supply. Interestingly, the higher interest rates should also increase capital flows from abroad, as foreigners put money into financial institutions attracted by the higher rates. This would lead to a surplus on the capital account, which helps to offset the current account deficit. This type of policy would also be politically unpopular as higher interest rates will increase people's mortgage, loan, and credit card payments. Moreover, the higher costs of borrowing as a result of higher rates of interest may act as a disincentive to domestic investment and limit potential growth.

The economic costs of reducing a large current account deficit suggest why it is important to prevent it from occurring. To avoid these costs many governments are actively pursuing export promotion policies, which may include government-run trade missions, hoping to develop new markets, and government-sponsored advertising campaigns.

The Marshall-Lerner condition

Theoretically if a country's currency depreciates or is devalued then this will lead to an increase in exports (they become less expensive in foreign markets) and a decrease in imports (they become more expensive domestically). This should result in an improvement in a country's current account, but this is not necessarily the case. We know that the effect of a price change on spending or revenues depends on price elasticity of demand. The price of exports might fall because of depreciation of the currency and, according to the law of demand, the quantity demanded will increase, but whether or not this leads to an increase in export revenues depends on foreigners' price elasticity of demand for exports. Similarly, the price of imported goods will rise if a currency falls in value and, according to the law of demand, the quantity demanded will fall, but whether or not this leads to a fall in expenditure on imports depends on the price elasticity of demand for imports.

The Marshall-Lerner condition is a rule that tells us how successful a depreciation or devaluation of a currency's exchange rate will be as a means to improve a current account deficit in the balance of payments. The condition states that reducing the value of the exchange rate will only be successful if the total value of the price elasticity of demand for exports and the price elasticity of demand for imports is greater than one. It may be written as an equation, stating that a fall in exchange rate will reduce a current account deficit if

$$PED_{exports} + PED_{imports} > 1$$

This is a fairly straightforward application of the concept of elasticity of demand. If the demand for exports was price inelastic and price fell as a result of a fall in the exchange rate, then the proportionate increase in the quantity of exports demanded would be less than the proportionate decrease in the price of exports and export revenue would fall. In the same way, if the demand for imports was price-inelastic and price rose following a fall in the exchange rate, then the proportionate fall in the demand for imports would be less than the proportionate increase in the price of imports and import expenditure would actually increase. The current account deficit would become worse.

Student workpoint 24.3

Be a thinker

1 Draw revenue boxes (as shown in Chapter 4) to illustrate the following:
   - **a** the effect of a depreciation or devaluation of a currency on export revenues when the demand for exports is inelastic
   - **b** the effect of a depreciation or devaluation of a currency on export revenues when the demand for exports is elastic
   - **c** the effect of a depreciation or devaluation of a currency on import expenditure when the demand for imports is inelastic
   - **d** the effect of a depreciation or devaluation of a currency on import expenditure when the demand for imports is elastic.
2 Under which of the conditions above will a current account deficit improve, i.e. become smaller?

We know that one of the determinants of elasticity of demand is the time period under consideration. Remember that demand becomes more elastic over a longer period of time. This applies to the elasticity of demand for exports and imports.

A study of trade elasticities in 2000[1] produced estimates of short-run and long-run price elasticities of demand for exports and imports for a number of countries. These are shown in Table 24.2.

Country	Short-run $PED_{exports}$	Short-run $PED_{imports}$	Total short-run PED	Long-run $PED_{exports}$	Long-run $PED_{imports}$	Total long-run PED
Canada	0.5	0.1	0.6	0.9	0.9	1.8
France	0.1	0.1	0.2	0.2	0.4	0.6
Germany	0.1	0.2	0.3	0.3	0.6	0.9
Italy	0.3	0.0	0.3	0.9	0.4	1.3
Japan	0.5	0.1	0.6	1.0	0.3	1.3
UK	0.2	0.0	0.2	1.6	0.6	2.2
US	0.5	0.6	1.1	1.5	0.3	1.8

Table 24.2 Short-run and long-run PED values in the G-7 countries

[1] *Trade elasticities for the G-7 countries,* Hooper, Johnson & Marquez, Princeton Studies in International Economics, No.87, August 2000

The figures show the following.

1 In almost all cases the short-run elasticity values are lower than the long-run values. This is exactly what we would expect to find from the theory stated in Chapter 4, which tells us that price elasticity values increase over time.
2 Only the US would meet the Marshall-Lerner condition in the short run, but all countries, other than France and Germany, meet the condition in the long run.

The J-curve

If a government is facing a current account deficit, it may reduce the exchange rate of its currency in order to make exports relatively less expensive and imports relatively more expensive. If this happens and the Marshall-Lerner condition is satisfied, i.e.

$$PED_{exports} + PED_{imports} > 1$$

then we would expect an improvement in the current account deficit.

However in the short run this is not the case and the current account deficit actually gets worse before it gets better. This is known as the J-curve effect. The J-curve shows what happens to a current account deficit over time when the exchange rate is devalued or depreciated. It is shown in Figure 24.1.

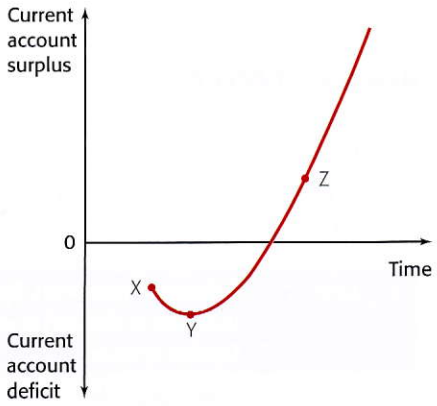


Figure 24.1 The J-curve

Let us assume that a country's current account deficit is at X and the government lowers the exchange rate.

The price of exports will fall, but communication is not perfect and it will take time for other countries to realize that the prices in this country have fallen. Also, other countries will have entered into contracts for goods and services that cannot be broken quickly, so they cannot change their suppliers immediately. This means that, in the short run, the PED for exports will be inelastic and export revenue will fall as prices have fallen by proportionately more than demand will have risen. This will increase the current account deficit and start moving from X to Y on the J-curve.

In the same way the price of imports will rise but purchasers of imports will take time to find new suppliers. Also, they may be tied into contracts and will have to wait for them to expire before they can move to other suppliers. This means that, in the short run, the PED for imports will also be inelastic and import expenditure will increase, as prices have risen by proportionately more than demand will have fallen. This will further increase the current account deficit and add to the movement from X to Y on the J-curve.

As we saw in Table 24.2, the value of PED for exports and imports increases with time. By the time that the current account deficit reaches the point Y, the values of PED for exports and imports have increased to the point where, when added together, they are greater than one, so the Marshall-Lerner condition is satisfied. From this point onwards the less expensive exports and more expensive imports should lead to increased export revenue and decreased import expenditure and therefore an improvement in the current account balance, as shown by the movement from Y towards Z on the J-curve.

Student workpoint 24.4

Be a thinker

Use the data in Table 24.2 to answer this question.

If Japan was experiencing a current account deficit and brought about a fall in the value of the yen, what would you expect to happen to the deficit:

1 in the short run? Why?
2 in the long run? Why?

Student workpoint 24.5

Be an inquirer

Research the balance of payments position of the country that you studied earlier. Consider the following questions.

- Does it have a current account surplus or deficit?
- How is the balance distributed between the visible balance and invisible balance?
- Can you explain why there is a surplus or deficit? (If there is a deficit you may be able to link this to the business cycle. If there is a surplus it may be due to the type of goods that it exports.)
- Is this surplus or deficit of a worrying level? Why or why not?
- If there is a deficit, how is it being financed?

Assessment advice

In HL paper 3, you may be asked to calculate elements of the balance of payments from a set of data.

Here is an example of the kind of question that you may face.

An extract from the balance of payments figures for country X is shown below.

Line	Balance of payments figures for country X [millions of dollars] (Credits +; debits −) Current account	2011
1	Exports of goods	?
2	Imports of goods	−661 200
3	**Balance of trade in goods**	−273 400
4	Exports of services	162 800
5	Imports of services	−122 400
6	**Balance of trade in services**	?
7	Income receipts (*investment income*)	276 500
8	Income payments (*investment income*)	−243 400
9	**Net income receipts** (*net investment income*)	33 100
10	**Current transfers, net**	−38 500
11	**Net income flows**	?
12	**Current account balance**	**?**
13	**Capital account**	
14	Capital account transactions, net	130
15	**Financial account**	
16	Direct investment, net	105 885
17	Portfolio investment, net	84 700
18	Reserve assets funding	?
19	Errors and omissions	26 500
20	**Capital and financial account balance**	**?**

1 Fill in the six missing values in the table, indicating whether they are credits (+) or debits (−) to the accounts. *[6 marks]*

2 Explain the relevance of reserve asset funding to the balance of payments. *[4 marks]*

3 Explain the concept of current transfers. *[4 marks]*

4 Country X has a free floating exchange rate. Explain what you would expect to happen to the exchange rate as a result of the international trade that has taken place in 2011. *[4 marks]*

END OF CHAPTER REVIEW QUESTIONS

1 Explain the components of a country's balance of payments.

2 Using a diagram, explain why a current account deficit may result in a depreciation of a country's currency.

HL With the help of a diagram, explain the link between the Marshall-Lerner condition and the J-curve.

HL Discuss the methods available to a government wishing to reduce its current account deficit.

Assessment advice

In your examinations, the questions on international economics will primarily be found in paper 2, the data response paper. However, since many of the models used in international economics are microeconomic models, you may be asked a question relating to international economics on paper 1, the essay paper. Question 2 above is an example of such a question.

Data response exercise

Read the following article and answer the questions that follow.

UK current account deficit widens as imports rocket

Trade data underlines fears that the fall in the **exchange rate** of the pound is raising costs for importers and not yet providing significant boost to exports.

Britain's trade gap widened more than expected in March as imports shot up five times faster than exports, according to official data that cast fresh doubts over the prospects of an export-driven economic recovery.

While many businesses say overseas orders have been improving, the official data underlined worries among economists that, for now at least, a weak pound is raising costs for importers but not yet providing a significant boost to exports. At the same time there are fears that financial troubles in the eurozone, a key trading partner for the UK, will prevent **demand** from rising significantly.

"Net exports are one of the greatest hopes for growth over the next two years given the improvement in competitiveness associated with the low value of the pound. Thus far, all the weakening in the pound has brought is inflation and we are still holding our breath for the long awaited boost to growth," said Alan Clarke, UK economist at BNP Paribas. "Although the weakness of the pound improves competitiveness, unless this is accompanied by an expansion in overseas demand then there will be little, if any, improvement in the performance of exports."

Source: Adapted from *www.guardian.co.uk*, Thursday 13 May, 2010

1 Define the following terms used in bold in the text:
   a exchange rate
   b demand

HL With reference to the Marshall-Lerner condition and the J-curve, explain why the weak pound may actually be causing the UK current account deficit to worsen.

HL Using an appropriate diagram, explain the statement that "all the weakening in the pound has brought is inflation".

HL Using information from the text and your knowledge of economics, evaluate the consequences of the falling pound on the UK economy.

The structure of the balance of payments for IB Diploma Programme economics students

Current account

- Balance of trade in goods
- Balance of trade in services
- Income
- Current transfers

Capital account

- Capital transfers
- Transactions in non-produced, non-financial assets

Financial account

- Direct investment
- Portfolio investment
- Reserve assets

Current account = capital account + financial account + errors and omissions