

# DEFERRED TAX

RELEVANT TO ACCA QUALIFICATION PAPERS F7 AND P2

**Deferred tax is a topic that is consistently tested in Paper F7, *Financial Reporting* and is often tested in further detail in Paper P2, *Corporate Reporting*. This article will start by considering aspects of deferred tax that are relevant to Paper F7, before moving on to the more complicated situations that may be tested in Paper P2.**

## The basics

Deferred tax is accounted for in accordance with IAS 12, *Income Taxes*. In Paper F7, deferred tax normally results in a liability being recognised within the Statement of Financial Position. IAS 12 defines a deferred tax liability as being the amount of income tax payable in future periods in respect of taxable temporary differences. So, in simple terms, deferred tax is tax that is payable in the future. However, to understand this definition more fully, it is necessary to explain the term 'taxable temporary differences'.

Temporary differences are defined as being differences between the carrying amount of an asset (or liability) within the Statement of Financial Position and its tax base ie the amount at which the asset (or liability) is valued for tax purposes by the relevant tax authority.

Taxable temporary differences are those on which tax will be charged in the future when the asset (or liability) is recovered (or settled).

IAS 12 requires that a deferred tax liability is recorded in respect of all taxable temporary differences that exist at the year-end – this is sometimes known as the full provision method.

All of this terminology can be rather overwhelming and difficult to understand, so consider it alongside an example. Depreciable non-current assets are the typical example behind deferred tax in Paper F7.

Within financial statements, non-current assets with a limited economic life are subject to depreciation. However, within tax computations, non-current assets are subject to capital allowances (also known as tax depreciation) at rates set within the relevant tax legislation. Where at the year-end the cumulative depreciation charged

and the cumulative capital allowances claimed are different, the carrying value of the asset (cost less accumulated depreciation) will then be different to its tax base (cost less accumulated capital allowances) and hence a taxable temporary difference arises.

## Example 1

A non-current asset costing \$2,000 was acquired at the start of year 1. It is being depreciated straight line over four years, resulting in annual depreciation charges of \$500. Thus a total of \$2,000 of depreciation is being charged. The capital allowances granted on this asset are:

	\$
Year 1	800
Year 2	600
Year 3	360
Year 4	<u>240</u>
Total capital allowances	<u>2,000</u>

**Table 1** shows the carrying value of the asset, the tax base of the asset and therefore the temporary difference at the end of each year.

As stated above, deferred tax liabilities arise on taxable temporary differences, ie those temporary differences that result in tax being payable in the future as the temporary difference reverses. So, how does the above example result in tax being payable in the future?

Entities pay income tax on their taxable profits. When determining taxable profits, the tax authorities start by taking the profit before tax (accounting profits) of an entity from their financial statements and then make various adjustments. For example, depreciation is considered a disallowable expense for taxation purposes but instead tax relief on capital expenditure is granted in the form of capital allowances. Therefore, taxable profits are arrived at by adding back depreciation and deducting capital allowances from the accounting profits. Entities are then charged tax at the appropriate tax rate on these taxable profits.

DEFERRED TAX IS ACCOUNTED FOR IN ACCORDANCE WITH IAS 12, INCOME TAXES. IN PAPER F7, DEFERRED TAX NORMALLY RESULTS IN A LIABILITY BEING RECOGNISED WITHIN THE STATEMENT OF FINANCIAL POSITION.

TABLE 1: THE CARRYING VALUE, THE TAX BASE OF THE ASSET AND THEREFORE THE TEMPORARY DIFFERENCE AT THE END OF EACH YEAR (EXAMPLE 1)

Year	Carrying value (Cost - accumulated depreciation)	Tax base (Cost - accumulated capital allowances)	Temporary difference
	\$	\$	\$
1	1,500	1,200	300
2	1,000	600	400
3	500	240	260
4	Nil	Nil	Nil

In the above example, when the capital allowances are greater than the depreciation expense in years 1 and 2, the entity has received tax relief early. This is good for cash flow in that it delays (ie defers) the payment of tax. However, the difference is only a temporary difference and so the tax will have to be paid in the future. In years 3 and 4, when the capital allowances for the year are less than the depreciation charged, the entity is being charged additional tax and the temporary difference is reversing. Hence the temporary differences can be said to be taxable temporary differences.

Notice that overall, the accumulated depreciation and accumulated capital allowances both equal \$2,000 – the cost of the asset – so over the four-year period, there is no difference between the taxable profits and the profits per the financial statements.

At the end of year 1, the entity has a temporary difference of \$300, which will result in tax being payable in the future (in years 3 and 4). In accordance with the concept of prudence, a liability is therefore recorded equal to the expected tax payable.

Assuming that the tax rate applicable to the company is 25%, the deferred tax liability that will be recognised at the end of year 1 is  $25\% \times \$300 = \$75$ . This will be recorded by crediting (increasing) a deferred tax liability in the Statement of Financial Position and debiting (increasing) the tax expense in the Income Statement.

By the end of year 2, the entity has a taxable temporary difference of \$400, ie the \$300 bought forward from year 1, plus the additional difference of \$100 arising in year 2. A liability is therefore now recorded equal to  $25\% \times \$400 = \$100$ . Since there was a liability of \$75 recorded at the end of year 1, the double entry that is recorded in year 2 is to credit (increase) the liability and debit (increase) the tax expense by \$25.

At the end of year 3, the entity's taxable temporary differences have decreased to \$260 (since the company has now been charged tax on the difference of \$140). Therefore in the future, the tax payable will be  $25\% \times \$260 = \$65$ . The deferred tax liability now needs reducing from \$100 to \$65 and so is debited (a decrease) by \$35. Consequently, there is now a credit (a decrease) to the tax expense of \$35.

At the end of year 4, there are no taxable temporary differences since now the carrying value of the asset is equal to its tax base. Therefore the opening liability of \$65 needs to be removed by a debit entry (a decrease) and hence there is a credit entry (a decrease) of \$65 to the tax expense. This can all be summarised in the following working.

AS IAS 12 CONSIDERS DEFERRED TAX FROM THE PERSPECTIVE OF TEMPORARY DIFFERENCES BETWEEN THE CARRYING VALUE AND TAX BASE OF ASSETS AND LIABILITIES, THE STANDARD CAN BE SAID TO TAKE A 'BALANCE SHEET APPROACH'. HOWEVER, IT WILL BE HELPFUL TO CONSIDER THE EFFECT ON THE INCOME STATEMENT.

The movements in the liability are recorded in the *Income Statement* as part of the taxation charge

Year	1	2	3	4
	\$	\$	\$	\$
Opening deferred tax liability	0	75	100	65
Increase/(decrease) in the year	<u>75</u>	<u>25</u>	<u>(35)</u>	<u>(65)</u>
Closing deferred tax liability	<u>75</u>	<u>100</u>	<u>65</u>	<u>0</u>

The **closing** figures are reported in the **Statement of Financial Position** as part of the deferred tax liability.

#### Proforma

**Example 1** provides a proforma, which may be a useful format to deal with deferred tax within a published accounts question.

The **movement** in the deferred tax liability in the year is recorded in the **Income Statement** where:

- an **increase** in the liability, **increases** the tax expense
- a **decrease** in the liability, **decreases** the tax expense.

The **closing** figures are reported in the **Statement of Financial Position** as the deferred tax liability.

#### The income statement

As IAS 12 considers deferred tax from the perspective of temporary differences between the carrying value and tax base of assets and liabilities, the standard can be said to take a 'balance sheet approach'. However, it will be helpful to consider the effect on the *Income Statement*.

Continuing with the previous example, suppose that the profit before tax of the entity for each of years 1 to 4 is \$10,000 (after charging depreciation). Since the tax rate is 25%, it would then be logical to expect the tax expense for each year to be \$2,500. However, income tax is based on taxable profits not on the accounting profits.

The taxable profits and so the actual tax liability for each year could be calculated as in **Table 2**.

The income tax liability is then recorded as a tax expense. As we have seen in the example, accounting for deferred tax then results in a further increase or decrease in the tax expense. Therefore, the final tax expense for each year reported in the *Income Statement* would be as in **Table 3**.

It can therefore be said that accounting for deferred tax is ensuring that the matching principle is applied. The tax expense reported in each period is the tax consequences (ie tax charges less tax relief) of the items reported within profit in that period.

#### EXAMPLE 1 PROFORMA

Opening deferred tax liability	\$ X	As given in the trial balance
Increase/(decrease) in the year <i>Tax rate % x Increase / Decrease in year-end taxable temporary differences</i>	<u>X/(X)</u>	This is taken to the taxation charge in the <i>Income Statement</i>
Closing deferred tax liability <i>Tax rate % x Year-end taxable temporary differences</i>	<u>X</u>	This is reported in the <i>Statement of Financial Position</i>

TABLE 2: TAXABLE PROFIT AND ACTUAL TAX LIABILITY CALCULATION (EXAMPLE 1)

	Year 1	Year 2	Year 3	Year 4
	\$	\$	\$	\$
Profit before tax	10,000	10,000	10,000	10,000
Depreciation	500	500	500	500
Capital allowances	<u>(800)</u>	<u>(600)</u>	<u>(360)</u>	<u>(240)</u>
Taxable profits	<u>9,700</u>	<u>9,900</u>	<u>10,140</u>	<u>10,260</u>
Tax liability @ 25% of taxable profits	<u>2,425</u>	<u>2,475</u>	<u>2,535</u>	<u>2,565</u>

TABLE 3: FINAL TAX EXPENSE FOR EACH REPORTED INCOME STATEMENT YEAR (EXAMPLE 1)

	Year 1	Year 2	Year 3	Year 4
Income tax	2,425	2,475	2,535	2,565
Increase/(decrease) due to deferred tax	75	25	<u>(35)</u>	<u>(65)</u>
Total tax expense	<u>2,500</u>	<u>2,500</u>	<u>2,500</u>	<u>2,500</u>

## THE PAPER F7 EXAM

Deferred tax is consistently tested in the published accounts question of the Paper F7 exam. (It should not be ruled out however, of being tested in greater detail in Question 4 or 5 of the exam.) Here are some hints on how to deal with the information in the question.

- The deferred tax liability given within the trial balance or draft financial statements will be the opening liability balance.
- In the notes to the question there will be information to enable you to calculate the closing liability for the SFP or the increase/decrease in the liability.

It is important that you read the information carefully. You will need to ascertain exactly what you are being told within the notes to the question and therefore how this relates to the working that you can use to calculate the figures for the answer.

Consider the following sets of information – all of which will achieve the same ultimate answer in the published accounts.

## Example 2

The trial balance shows a credit balance of \$1,500 in respect of a deferred tax liability.

The notes to the question could contain one of the following sets of information:

- 1 At the year-end, the required deferred tax liability is \$2,500.
- 2 At the year-end, it was determined that an increase in the deferred tax liability of \$1,000 was required.
- 3 At the year-end, there are taxable temporary differences of \$10,000. Tax is charged at a rate of 25%.
- 4 During the year, taxable temporary differences increased by \$4,000. Tax is charged at a rate of 25%.

TABLE 4: EXAMPLE 2 – PUBLISHED ACCOUNTS QUESTION

Situation 1		
Opening deferred tax liability	\$ 1,500	<i>Provided in trial balance</i>
Increase in the year to be taken to IS as an increase in tax expense	<u>1,000</u>	<i>Balancing figure</i>
Closing deferred tax liability to be reported in SFP	<u>2,500</u>	<i>Provided in information</i>
Situation 2		
Opening deferred tax liability	\$ 1,500	<i>Provided in trial balance</i>
Increase in the year to be taken to IS as an increase in tax expense	<u>1,000</u>	<i>Provided in information</i>
Closing deferred tax liability to be reported in SFP	<u>2,500</u>	<i>Balancing figure</i>
Situation 3		
Opening deferred tax liability	\$ 1,500	<i>Provided in trial balance</i>
Increase in the year to be taken to IS as an increase in tax expense	<u>1,000</u>	<i>Balancing figure</i>
Closing deferred tax liability to be reported in SFP	<u>2,500</u>	<i>Calculated from information (25% x \$10,000)</i>
Situation 4		
Opening deferred tax liability	\$ 1,500	<i>Provided in trial balance</i>
Increase in the year to be taken to IS as an increase in tax expense	<u>1,000</u>	<i>Calculated from information (25% x \$4,000)</i>
Closing deferred tax liability to be reported in SFP	<u>2,500</u>	<i>Balancing figure</i>

Situations 1 and 2 are both giving a figure that can be slotted straight into the deferred tax working. In situations 3 and 4 however, the temporary differences are being given. These are then used to calculate a figure which can be slotted into the working. In all situations, the missing figure is calculated as a balancing figure. **Table 4** shows the completed workings.

#### Revaluations of non-current assets

Revaluations of non-current assets (NCA) are a further example of a taxable temporary difference. When an NCA is revalued to its current value within the financial statements,

the revaluation surplus is recorded in equity (in a revaluation reserve) and reported as other comprehensive income. While the carrying value of the asset has increased, the tax base of the asset remains the same and so a temporary difference arises.

Tax will become payable on the surplus when the asset is sold and so the temporary difference is taxable. Since the revaluation surplus has been recognised within equity, to comply with matching, the tax charge on the surplus is also charged to equity. Suppose that in **Example 1**, the asset is revalued to \$2,500 at the end of year 2, as shown in **Table 5**.

REVALUATIONS OF NON-CURRENT ASSETS (NCA) ARE A FURTHER EXAMPLE OF A TAXABLE TEMPORARY DIFFERENCE. SINCE THE REVALUATION SURPLUS HAS BEEN RECOGNISED WITHIN EQUITY, TO COMPLY WITH MATCHING, THE TAX CHARGE ON THE SURPLUS IS ALSO CHARGED TO EQUITY.



TABLE 5: REVALUED ASSET AT THE END OF YEAR 2 (EXAMPLE 1)

Year 2	Carrying value (Cost - accumulated depreciation)	Tax base (Cost - accumulated capital allowances)	Temporary difference
	\$	\$	\$
Opening balance	1,500	1,200	300
Depreciation charge/capital allowance	(500)	(600)	100
Revaluation	<u>1,500</u>	-	<u>1,500</u>
Closing Balance	<u>2,500</u>	<u>600</u>	<u>1,900</u>

The carrying value will now be \$2,500 while the tax base remains at \$600. There is, therefore, a temporary difference of \$1,900, of which \$1,500 relates to the revaluation surplus. This gives rise to a deferred tax liability of  $25\% \times \$1,900 = \$475$  at the year-end to report in the Statement of Financial Position. The liability was \$75 at the start of the year (**Example 1**) and thus there is an increase of \$400 to record.

However, the increase in relation to the revaluation surplus of  $25\% \times \$1,500 = \$375$  will be charged to the revaluation reserve and reported within other comprehensive income. The remaining increase of \$25 will be charged to the Income Statement as before.

The overall double entry is:

Dr	Tax expense in Income Statement	\$25
Dr	Revaluation reserve in equity	\$375
Cr	Deferred tax liability in SFP	\$400

#### THE PAPER P2 EXAM

In the pilot paper for the new syllabus, the theory of and accounting for deferred tax formed the basis of a 25-mark question in Section B. More recently in June 2009, it was tested within the group accounts in Question 1. It is important to appreciate that deferred tax can arise in respect of many different types of asset or liability and not just non-current assets as discussed above. Therefore, for Paper P2 it is more important that students understand the principles behind deferred tax so that they can be applied to any

given situation. Some of the situations that may be seen are discussed below. In all of the following situations, assume that the applicable tax rate is 25%.

#### Deferred tax assets

It is important to be aware that temporary differences can result in needing to record a deferred tax asset instead of a liability. Temporary differences affect the timing of when tax is paid or when tax relief is received. While normally they result in the payment being deferred until the future or relief being received in advance (and hence a deferred tax liability) they can result in the payment being accelerated or relief being due in the future.

In these latter situations the temporary differences result in a deferred tax asset arising (or where the entity has other larger temporary differences that create deferred tax liabilities, a reduced deferred tax liability).

Whether an individual temporary difference gives rise to a deferred tax asset or liability can be ascertained by applying the following rule:

Carrying value of asset / (Liability)	-	Tax base of asset / (Liability)	=	Temporary difference
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If the temporary difference is **positive**, a deferred tax **liability** will arise. If the temporary difference is **negative**, a deferred tax **asset** will arise.

IT IS IMPORTANT TO BE AWARE THAT TEMPORARY DIFFERENCES CAN RESULT IN NEEDING TO RECORD A DEFERRED TAX ASSET INSTEAD OF A LIABILITY. TEMPORARY DIFFERENCES AFFECT THE TIMING OF WHEN TAX IS PAID OR WHEN TAX RELIEF IS RECEIVED.

TO CALCULATE THE DEFERRED TAX IMPLICATIONS ON CONSOLIDATION ADJUSTMENTS WHEN PREPARING THE GROUP ACCOUNTS, THE CARRYING VALUE REFERS TO THE CARRYING VALUE WITHIN THE GROUP ACCOUNTS WHILE THE TAX BASE WILL BE THE TAX BASE IN THE ENTITIES' INDIVIDUAL ACCOUNTS.

TABLE 6: IMPAIRMENT OF NON-CURRENT ASSET (EXAMPLE 3)

Carrying value of the asset	Tax base of the asset	Temporary difference	Deferred tax asset or liability?
\$ 2,800	\$ 3,500	\$ (700)	Asset

TABLE 7: WRITE DOWN OF INVENTORY (EXAMPLE 4)

Carrying value of the asset	Tax base of the asset	Temporary difference	Deferred tax asset or liability?
\$ 9,000	\$ 10,000	\$ (1,000)	Asset

TABLE 8: ACCRUED PENSION CONTRIBUTIONS (EXAMPLE 5)

Carrying value of the asset	Tax base of the asset	Temporary difference	Deferred tax asset or liability?
\$ (25,000)	\$ Nil	\$ (25,000)	Asset

**Example 3**

Suppose that at the reporting date the carrying value of a non-current asset is \$2,800 while its tax base is \$3,500, as shown in **Table 6** above.

In this scenario, the carrying value of the asset has been written down to below the tax base. This might be because an impairment loss has been recorded on the asset which is not allowable for tax purposes until the asset is sold. The entity will therefore receive tax relief on the impairment loss in the future when the asset is sold.

The deferred tax asset at the reporting date will be  $25\% \times \$700 = \$175$ .

It is worth noting here that revaluation gains, which increase the carrying value of the asset and leave the tax base unchanged, result in a deferred tax liability. Conversely, impairment losses, which decrease the carrying value of the asset and leave the tax base unchanged, result in a deferred tax asset.

**Example 4**

At the reporting date, inventory which cost \$10,000 has been written down to its net realisable value of \$9,000. The write down is ignored for tax purposes until the goods are sold.

The write off of inventory will generate tax relief, but only in the future when the goods are sold. Hence the tax base of the inventory is not reduced by the write off. Consequently, a deferred tax asset of  $25\% \times \$1,000 = \$250$  as shown in **Table 8** should be recorded at the reporting date.

**Example 5**

At the reporting date, an entity has recorded a liability of \$25,000 in respect of pension contributions due. Tax relief is available on pension contributions only when they are paid.



The contributions will only be recognised for tax purposes when they are paid in the future. Hence the pension expense is currently ignored within the tax computations and so the liability has a nil tax base, as shown in **Table 8**. The entity will receive tax relief in the future and so a deferred tax asset of  $25\% \times \$25,000 = \$6,250$  should be recorded at the reporting date.

#### Group financial statements

When dealing with deferred tax in group accounts, it is important to remember that a group does not legally exist and so is not subject to tax. Instead, tax is levied on the individual legal entities within the group and their individual tax assets and liabilities are cross-cast in the consolidation process. To calculate the deferred tax implications on consolidation adjustments when preparing the group accounts, the carrying value refers to the carrying value within the group accounts while the tax base will be the tax base in the entities' individual accounts.

#### Fair value adjustments

At the date of acquisition, a subsidiary's net assets are measured at fair value. The fair value adjustments may not alter the tax base of the net assets and hence a temporary difference may arise. Any deferred tax asset/liability arising as a result is included within the fair value of the subsidiary's net assets at acquisition for the purposes of calculating goodwill.

#### Goodwill

Goodwill only arises on consolidation – it is not recognised as an asset within the individual financial statements. Theoretically, goodwill gives rise to a temporary difference that would result in a deferred tax liability as it is an asset with a carrying value within the group accounts but will have a nil tax base. However, IAS 12 specifically excludes a deferred tax liability being recognised in respect of goodwill.

WHEN DEALING WITH DEFERRED TAX IN GROUP ACCOUNTS, IT IS WORTH REMEMBERING THAT A GROUP DOES NOT LEGALLY EXIST AND SO IS NOT SUBJECT TO TAX. TAX IS LEVIED ON THE INDIVIDUAL LEGAL ENTITIES WITHIN THE GROUP AND THEIR INDIVIDUAL TAX ASSETS AND LIABILITIES ARE CROSS-CAST IN THE CONSOLIDATION PROCESS.

#### Provisions for unrealised profits (PUPs)

When goods are sold between group companies and remain in the inventory of the buying company at the year-end, an adjustment is made to remove the unrealised profit from the consolidated accounts. This adjustment also reduces the inventory to the original cost when a group company first purchased it. However, the tax base of the inventory will be based on individual financial statements and so will be at the higher transfer price. Consequently, a deferred tax asset will arise. Recognition of the asset and the consequent decrease in the tax expense will ensure that the tax already charged to the individual selling company is not reflected in the current year's consolidated income statement but will be matched against the future period when the profit is recognised by the group.

#### Example 6

P owns 100% of the equity share capital of S. P sold goods to S for \$1,000 recording a profit of \$200. All of the goods remain in the inventory of S at the year-end. **Table 9** shows that a deferred tax asset of  $25\% \times \$200 = \$50$  should be recorded within the group financial statements.

#### Measurement of deferred tax

IAS 12 states that deferred tax assets and liabilities should be measured based on the tax rates that are expected to apply when the asset/liability will be realised/settled. Normally, current tax rates are used to calculate deferred tax on the basis that they are a reasonable approximation of future tax rates and that it would be too unreliable to estimate future tax rates.

Deferred tax assets and liabilities represent future taxes that will be recovered or that will be payable. It may therefore be expected that they should be discounted to reflect the time value of money, which would be consistent with the way in which other liabilities are measured. IAS 12, however, does not permit or allow the discounting of deferred tax assets or liabilities on practical grounds.



TABLE 9: PROVISION FOR UNREALISED PROFITS (EXAMPLE 6)

	Carrying value of the asset within group accounts	Tax base of the asset in individual entity accounts	Temporary difference	Deferred tax asset or liability?
	\$	\$	\$	
Cost to S	1,000			
PUP	<u>(200)</u>			
	<u>800</u>	1,000	(200)	Asset

The primary reason behind this is that it would be necessary for entities to determine when the future tax would be recovered or paid. In practice this is highly complex and subjective. Therefore, to require discounting of deferred tax liabilities would result in a high degree of unreliability. Furthermore, to allow but not require discounting would result in inconsistency and so a lack of comparability between entities.

#### Deferred tax and the Framework

As we have seen, IAS 12 considers deferred tax by taking a balance sheet approach to the accounting problem by considering temporary differences in terms of the difference between the carrying values and the tax values of assets and liabilities – also known as the valuation approach. This can be said to be consistent with the IASB Framework's approach to recognition within financial statements.

However, the valuation approach is applied regardless of whether the resulting deferred tax will meet the definition of an asset or liability in its own right.

Thus, IAS 12 considers the overriding accounting issue behind deferred tax to be the application of matching – ensuring that the tax consequences of an item reported within the financial statements are reported in the same accounting period as the item itself.

For example, in the case of a revaluation surplus, since the gain has been recognised in the financial statements, the tax consequences of this gain should also be recognised – that is to say, a tax charge. In order to recognise a tax charge, it is necessary to complete the double entry by also recording a corresponding deferred tax liability.

However, part of the Framework's definition of a liability is that there is a 'present obligation'. Therefore, the deferred tax liability arising on the revaluation gain should represent the current obligation to pay tax in the future when the asset is sold. However, since there is no present obligation to sell the asset, there is no present obligation to pay the tax.

Therefore, it is also acknowledged that IAS 12 is inconsistent with the Framework to the extent that a deferred tax asset or liability does not necessarily meet the definition of an asset or liability.

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IAS 12 CONSIDERS DEFERRED TAX BY TAKING A BALANCE SHEET APPROACH TO THE ACCOUNTING PROBLEM BY CONSIDERING TEMPORARY DIFFERENCES IN TERMS OF THE DIFFERENCE BETWEEN THE CARRYING VALUES AND THE TAX VALUES OF ASSETS AND LIABILITIES.