

## Hong Kong Financial Reporting Standards: HKAS 12 “Income Taxes”

(relevant to PBE Paper 1 – Financial Reporting)

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The accounting of income tax expense on financial statements is complicated when the taxable profit is not the same as the accounting profit. This article explains the balance sheet approach as adopted by HKAS 12 “Income Taxes”, which focuses on the difference between the carrying amount of assets and liabilities as reported in the statement of financial position and their amount in tax terms, and illustrates how this difference affects the income tax items in the income statement and balance sheet.

### Objectives of HKAS 12

The objective of HKAS 12 is to prescribe accounting treatments for income tax consequences of transactions to include both the current and future consequences so that they are accounted for in the same manner and in the same period as the transactions themselves.

### Current and Future Tax Consequences

The importance of recognizing both the current and future tax consequences is illustrated below.

#### Example 1

An entity recognizes interest revenue of \$400 in the current year. Of this amount, \$100 has been received in cash and a receivable asset has been recognized for the remaining \$300. Assume that tax laws regards interest revenue as taxable only when it is received, and that the tax rate is 17%. Therefore the entity will pay tax of \$17 ( $\$100 \times 17\%$ ) in the current year and tax of \$51 ( $\$300 \times 17\%$ ) in the following year when the \$300 receivable is paid. If the entity were to record only the current tax payable amount of \$17 as an income tax expense, the profit for the year will be overstated by \$51 given that \$68 of the interest revenue recognized for the current year will eventually be paid to the taxation authorities. HKAS 12 therefore states that, for the current period, the entity must record an income tax expense of \$68, comprising the current component of \$17 and the future or deferred component of \$51. In the balance sheet, the entity has to record current tax payable of \$17 and a deferred tax liability of \$51.

### Calculation of Current Income Tax Expense

As in Example 1, current tax is simply tax payable to the taxation authorities (\$17). The recognition of current tax is therefore straightforward, measured at the amount expected to be paid to the taxation authorities and using tax rates that are enacted at the balance sheet date.

### Calculation of Deferred Income Tax Expense

As illustrated in Example 1, deferred tax arises when there is a temporary difference between the accounting profit and taxable profit. The difference is temporary because sooner or later (in two years in Example 1), the amount of interest revenue will equal the amount of taxable interest income. Following the balance sheet approach as required by the HKAS 12, this temporary difference can be interpreted as resulting from the carrying amount of the interest receivable (\$300) being different from the amount that would result if the balance sheet were prepared by the taxation authority (referred to as the tax base in HKAS 12, intuitively equal to \$0 for the receivable in Example 1 because it simply does not exist from the taxation authority's view: a more formal calculation of the tax base is provided in Example 2). Deferred tax is then calculated by applying the tax rate (17%) to the temporary difference (carrying amount – tax base) identified ( $\$300 - \$0 = \$300$ ) and which is equal to the same \$51 mentioned above following an income statement approach<sup>1</sup> – an approach which is easier to understand although it is not allowed any more and has been replaced by the balance sheet approach in the current HKAS 12.

### Determining Tax Base

The calculation of deferred tax starts with the determination of tax bases. While intuitive reasoning works well in simple situations (e.g., tax bases for interest receivable and provisions for holiday pay are both \$0 and non-existent if the taxation authority has adopted the cash basis for them; and tax bases for trade receivables and payables are both the same as their carrying amounts if the taxation authority has adopted the accrual basis for them), three formulae are

1. The income statement approach of deferred tax focuses on the timing difference between the accounting profit and taxable profit that originates in one period and reverses in later periods. This was the approach taken internationally until the 1990s. The balance sheet approach focuses on the temporary difference between the carrying amount of assets and liabilities and their amount in the taxation authority's view and is the approach currently required by the International Financial Reporting Standards (IFRS) and US GAAP. The temporary difference is a more comprehensive concept than that of the timing difference. It includes all items defined under the timing difference concept and adds a number of additional items, e.g. the difference arising from revaluation of assets acquired in a business combination.

provided in HKAS 12 to help with the more complicated situations.

**1. Tax base of an asset = Carrying amount - Future taxable amounts + Future deductible amounts**

Assets represent economic benefits which are normally taxable (e.g., revenue from trade receivables and sales proceeds or value-in-use from machines). However if the economic benefits will only become taxable in the future, they will not appear in the taxation authority's balance sheet and are therefore deducted in the formula. For assets like property, plant and equipment which are mostly for use in the business, if the taxation authority allows tax deductions as they are used, they will appear in the taxation authority's balance sheet and are therefore added in the formula.

**2. Tax base of a liability = Carrying amount - Future deductible amounts + Future taxable amounts**

Liabilities, other than those relating to revenues received in advance (separately dealt with in the next formula), do not create taxable amounts. Instead, settlement of them may give rise to deductions, e.g., provisions for holiday may be deductible only when paid. Similar to the reasoning for the tax base of an asset, if deductions only become available in the future, they will not appear in the taxation authority's balance sheet and are therefore deducted in the formula. Liabilities rarely involve taxability; the addition of future taxable amounts in the formula can be ignored for reasons of simplicity.

**3. Tax base of a revenue received in advance = Carrying amount - Amount that will not be taxable in the future**

"Amount that will not be taxable in the future" can be better understood as "amount that has been included in taxable amounts in the current or a previous reporting period". When this amount is deducted from the carrying amount, what remains is the amount that will become taxable in the future when the amounts are settled (revenues received in advance are settled when they are earned) and this is what the taxation authority will show in its balance sheet.

### Determining temporary difference

When the carrying amount of an asset or liability is different from its tax base, a temporary difference exists. A temporary difference effectively represents the future taxable or deductible amount when an asset is recovered or a liability is settled at its carrying amount. A temporary difference may be either taxable or deductible.

**1. Taxable temporary difference and deferred tax liability**

A taxable temporary difference is one that will result in a taxable amount in a future period. It exists when the future taxable amount of an asset (or a liability) exceeds any future deductible amounts. In other words, the expectation is that the entity will pay income tax in the future, when it recovers (or settles) the carrying amount of the asset (or liability). As the payment occurs in the future, the liability is referred to as a deferred tax liability.

A taxable temporary difference arises, for example, when an asset is depreciated more quickly for tax than for accounting purposes and its carrying amount therefore exceeds its tax base. In other words, as the carrying amount of the asset is recovered, the economic benefits subject to tax exceed the future tax deductions available. The tax effect of this taxable temporary difference gives rise to a deferred tax liability.

**2. Deductible temporary difference and deferred tax asset**

A deductible temporary difference is one that will result in a deductible amount in a future period. It exists when the future deductible amounts of a liability (or an asset) exceed any future taxable amounts. In other words, in settling the liability (or recovering the asset), the entity will reduce its future taxable profit and hence its future tax payments. The entity thus has an expected benefit relating to the future deduction. As the benefits are to be received in the future, the asset is referred to as a deferred tax asset.

### Determining deferred tax asset and liability

After a total is determined for the taxable temporary difference and deductible temporary difference (\$180 and \$105 in Example 2), an appropriate tax rate is applied to these totals to derive the balance of the deferred tax liability and deferred tax asset to be reported at the end of the period. HKAS 12 requires that deferred tax assets and liabilities shall be measured at the tax rates that are expected to apply to the period when the asset is recovered or the liability settled, based on tax rates that have been enacted or substantially enacted by the balance sheet date. Thus if the tax rate in Example 2 is currently 17% but will drop to 16% in the next reporting period, the deferred tax liability and asset are to be measured at 16%. The resulting figures (\$28.8 and \$16.8) represent the closing balances of the deferred tax liabilities and assets at the period end.

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## Example 2

### Tax Base, Temporary Difference and Deferred Tax Calculation

	Carrying amount \$	Future taxable amount \$	Future deductible amount \$	Amount already taxed \$	Tax base \$	Taxable temporary difference \$	Deductible temporary difference \$
<b>Asset items</b>							
Machine with cost of \$100 and carrying amount of \$90. Depreciation of \$20 has already been claimed to date for tax deduction.	90	(90)	80	n/a	80*	10	–
Machine with cost of \$100, carrying amount of \$90 and revalued to \$150. Depreciation of \$20 has already been claimed to date for tax deduction.	150	(150)	80	n/a	80*	70	–
Trade receivable with carrying amount of \$100. There are no doubtful debts. Related revenue of \$100 has already been included in taxable profit.	100	0	0	n/a	100	–	–
Trade receivable with carrying amount of \$100. This is after allowance for doubtful debts of \$5, which however has not been deducted for tax purposes but will be deducted later when it is not collected.	100	0	5	n/a	105	–	5
Interest receivable with carrying amount of \$100. Related interest revenue of \$100 will be taxed later when it is received.	100	(100)	0	n/a	0	100	–
Loan receivable with carrying amount of \$100.	100	0	0	n/a	100	–	–
<b>Liability items</b>							
Trade payable with carrying amount of \$100. Related cost of sales/expense of \$100 has already been deducted from taxable profit.	100	0	0	n/a	100	–	–
Provision for holiday pay with carrying amount \$100. Related expense of \$100 will be deducted later when it is paid.	100	0	(100)	n/a	0	–	100

<b>Tax Base, Temporary Difference and Deferred Tax Calculation (continued)</b>							
	Carrying amount \$	Future taxable amount \$	Future deductible amount \$	Amount already taxed \$	Tax base \$	Taxable temporary difference \$	Deductible temporary difference \$
Loan payable with carrying amount of \$100.	100	0	0	n/a	100	–	–
Revenue received in advance with carrying amount of \$100. Related revenue of \$100 has already included in taxable profit when earlier received.	100	n/a	n/a	(100)	0	–	–
Total						180	105
Deferred tax liability at period end						\$28.8**	
Deferred tax asset at period end							\$16.8**
Opening balance						11.0	12.0
Movement during period						\$17.8 Increase	\$ 4.8 Increase
Dr Income tax expense (deferred) and Cr Deferred tax liability						17.8	
Dr Deferred tax asset and Cr Income tax expense (deferred)							4.8

\* The tax base of a depreciable asset is its tax written down value. The only exception is when the depreciable asset (1) is revalued, (2) is for sale, AND (3) is not subject to capital gain tax; and the resulting tax base is higher than its tax written down value, by an amount which is equal to the capital gains tax avoided. Details about this exception are however outside the scope of this article.

\*\* Assuming a tax rate of 16%

## Determining deferred income tax expense

The closing balances of the deferred tax accounts are then compared to their respective opening balances at the beginning of the period. The difference represents the adjustment necessary to account for the changes (additions and reversals) to the deferred tax items during the period. In Example 2, assume the opening balances of the deferred tax liability and asset are \$11 and \$12 respectively; the deferred tax liability has to be increased by \$17.8 and deferred tax assets increased by \$4.8 to arrive at their individual closing balances to be shown in the balance sheet at the period end. As a result, there is an increase of \$17.8, being offset by a decrease of \$4.8, and resulting in a net increase of \$13 to the current period's income tax expense. The combined journal entries are as follows:

Income tax expense (deferred)	Dr	13.0	
Deferred tax asset	Dr	4.8	
Deferred tax liability	Cr		17.8

## Excluded temporary differences

HKAS 12 requires three exclusions for the recognition

of deferred tax liabilities and assets for taxable and deductible temporary differences arising from:

- initial recognition of goodwill
- goodwill for which amortization is not deductible for tax purposes
- initial recognition of an asset or liability which is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable profit.

Goodwill is the excess of the cost over net fair value acquired in a business combination. If the tax laws do not permit the deduction of goodwill amortization, the tax base of goodwill is always zero and a taxable temporary difference therefore always exists. If the deferred tax liability were to be recognized, the net fair value acquired would be decreased and goodwill, being a residual amount, would increase as a result. This recognition would be meaningless and is therefore not permitted by HKAS 12.

Similarly if a deferred tax liability or asset were to be recognized in the initial recognition of an asset or liability, the carrying amount of the asset or liability and the deferred tax liability or asset would be adjusted by the same amount and, as a result, the financial

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statements would become less transparent: this recognition is therefore also not permitted by HKAS 12. However if the initial recognition is to do with a business combination, then deferred tax assets and liabilities must be recognized, otherwise the residual goodwill amount arising from the combination may not be correct.

## Recognition of deferred tax assets

The recognition of deferred tax liabilities is straightforward because it is always probable that resources will flow from the entity to pay the tax associated with the taxable temporary differences. Other than for the three exclusions mentioned above, deferred tax liabilities are therefore recognized for all taxable temporary differences.

More consideration is however required for the recognition of deferred tax assets. The reversal of deferred tax assets associated with deductible temporary differences results in deductions against the taxable profits of future periods. An entity will benefit from these deductions only if it has sufficient taxable profits against which the deductions can be offset.

HKAS 12 requires that deferred tax assets shall be recognized for all deductible temporary differences to

the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized. According to HKAS 12, it is probable that deductible temporary difference can be utilized:

- when there are sufficient taxable temporary differences that are expected to reverse in the same period as the expected reversal of the deductible temporary differences, or
- in periods into which a tax loss arising from the deferred tax asset can be carried back or forward.

## Conclusion

This article explains the basic content of HKAS 12 "Income Taxes" which requires entities to account for both the current and future tax consequences of transactions by recognizing temporary differences and deferred tax liabilities and assets. As a result, tax consequences of transactions are to be accounted for in the same manner and in the same period as the transactions themselves.

## Reference

Hong Kong Accounting Standard 12 "Income Taxes"