

Module 6: Accounting for income tax

Overview

Accounting for income tax is a complex topic, and many companies must seek advice in order to ensure it is properly treated in their financial statements. Mastery of the alternatives and their financial statement impact is essential for accountants providing knowledge of such advice.

Module 6 deals with future, or deferred, income tax. Because GAAP policies, chosen to provide useful information to investors and creditors, may not meet the objectives of the Canada Revenue Agency (CRA), there are many differences between GAAP and legislated tax policies. This module covers the effects of these differences. Complications caused by changes in tax rates are reviewed, as are the financial statement impacts of tax losses.

Test your knowledge

Begin your work in this module with a set of [test-your-knowledge questions](#) designed to help you gauge the depth of study required.

Learning objectives

- 6.1 Explain permanent and temporary differences between accounting and taxable income. (Level 1)
- 6.2 Explain the characteristics of future income taxes, and describe the major alternatives for recording corporate income tax. (Level 2)
- 6.3 Determine the appropriate accounting treatment for income taxes in accordance with Canadian standards, recognizing permanent and temporary differences. (Level 1)
- 6.4 Prepare journal entries to record investment tax credits, and explain the substance of the benefit received. (Level 2)
- 6.5 Explain the impact of operating losses (both loss carrybacks and loss carryforwards) for tax purposes on the financial statements. (Level 2)
- 6.6 Explain financial statement disclosure required for income tax, assess tax related quality of earnings issues, and explain IFRS governing tax allocation. (Level 1)

Focus on IFRS



There are no substantive differences between current Canadian standards and the IFRS position. There are some wording changes, with "future income taxes" (Canadian) reverting back to the more traditional "deferred taxes" (IFRS), and recognition criteria for tax assets referred to under IFRS as "probable" instead of the Canadian "more likely than not."

6.1 Permanent and temporary differences



Learning objective

- Explain permanent and temporary differences between accounting and taxable income. (Level 1)



Required reading

- Chapter 15, pages 899-902 (refer to Exhibit 15-1 on page 902)

LEVEL 1

There are two types of differences between accounting and taxable income: permanent differences and temporary differences. To see if you understand these concepts, and to establish basic tax treatment, classify the following items:

1. *Dividend income reported by a Canadian corporation, from a taxable Canadian corporation* — These dividends are appropriately recorded as accounting income, but are not taxable income.
2. *Golf club dues* — These expenses are reported for accounting purposes (often as marketing expenses), but are not tax deductible.
3. *Amortization expense* — Amortization expense is not tax deductible, but it has a tax counterpart, capital cost allowance (CCA), which will equal amortization expense over the life of the asset but may not equal amortization expense in any one year.
4. *Percentage-of-completion income* — Accounting recognition rules allow revenue recognition as work is being done. For tax purposes, revenue is recognized when the contract is complete. Over time, the two result in identical amounts of income but revenue recognized in any individual year will be different.

The first two items are permanent differences because total accounting and taxable income are permanently different. The next two are temporary differences because accounting and taxable income are temporarily different, but will be equal over time. You should soon be familiar with the group of temporary and permanent differences that frequently show up in accounting problems.

Be sure to understand the definitions of *originating* (growing) and *reversing* (decreasing) temporary differences as discussed on page 901. Temporary differences can be debits or credits, so you can't use *debit* or *credit* to automatically mean an increase or a decrease.

The terms *timing differences* and *temporary differences* describe two ways to approach the identification of certain differences between accounting and taxable income. All timing differences are also temporary differences, but temporary differences include a broader variety of balance sheet items that create differences between accounting and taxable income. Temporary differences that are not timing differences are fairly complex and are generally beyond the scope of this course.

6.2 Accounting alternatives



Learning objective

- Explain the characteristics of future income taxes, and describe the major alternatives for recording corporate income tax. (Level 2)



Required reading

- Chapter 15, pages 903-908

LEVEL 2

The income tax payable by a corporation is determined according to the provisions of the *Income Tax Act*. The Act does not adhere to generally accepted accounting principles (GAAP); it is designed to collect tax in a fair and equitable manner and to encourage government fiscal policy (for example, increased spending on capital assets and research encouraged through fast tax write-offs).

One of the first questions about corporate income tax is whether it is an *expense* incurred to earn income or a distribution of *profit* to one of the corporation's stakeholders. Unlike other expenses incurred to generate revenue, income tax is not incurred to create revenue; it is the *result* of earning a profit. The classic treatment of income tax is as an expense because tax is an amount paid to an outside party. In our accounting model, tax must therefore be accrued before profit is available to the owners of the corporation. After that conceptual hurdle is cleared, there are a number of major policy decisions to be established by standard setters in order to establish GAAP for income tax accounting.

However, you must first master the terms. Referring to the text, can you explain the following terms?

- taxes payable method (page 903)
- comprehensive tax allocation (page 903)
- partial tax allocation (page 904)
- the deferral method (page 906)
- the liability or accrual method (page 906)
- discounting (page 908)

Global practice

Around the world, there are many different accounting policies adopted by standard setters. This is potentially confusing for financial statement users. There is no clear answer as to which accounting policy for income tax measurement is "right."

Standards are set in order to help investors, creditors, and other financial statement users make appropriate resource allocation decisions and evaluate management stewardship. Capital markets provide no consistent signal as to the preferable method for income tax accounting. Furthermore, interpretation of future income taxes in a given situation requires considerable analysis, interpretation, and assumption(s). Allowing private companies to use the taxes payable method is a clear indication of the complexity in this area. If the

additional complexity (and cost) does not support better decisions, it is not appropriate.

Deferral and liability methods

The focus of the deferral method is the income statement, which records the income tax expense relating to the accounting income, along with the income tax payable. The deferred amount is forced by the calculations of these two amounts.

The focus of the liability method is the balance sheet, which records the accurate liability amounts for both income tax payable and FIT. The current income tax expense is forced through these two calculations, when using the liability method.

The distinction between the deferral and the liability method when tax rates change is crucial: the deferral method does not adjust existing balances for changes in the tax rate, but the liability method *does*. This is demonstrated in the following activity.

Activity 6.2-1: Comparing deferral and liability methods

Assume that, at the beginning of 20X5, the future (deferred) tax liability was a \$40,000 credit, caused by \$100,000 of accumulated temporary differences (CCA and amortization). Up to now, there have been no changes in tax rates and the deferral and liability methods have been identical. The tax rate has been 40% ($\$40,000 \div \$100,000$) but it changes to 47% in 20X5.

In 20X5, there is \$50,000 of accounting income and CCA exceeds accounting amortization by \$10,000. Prepare the journal entries to record income tax expense for the two methods.

Solution

Comparing policy alternatives

Work through Example 6.2-1, which demonstrates the differences between deferral, liability, partial tax allocation, and discounting policy alternatives. *You are not responsible for these calculations*; they are given to you to help you understand the concepts, which you must be able to explain.

Example 6.2-1: Comparing policy alternatives

Data

Chi Corporation, 20X1, first year of operation

Net income before tax	\$100,000
Amortization expense (per the income statement)	\$ 10,000
Capital cost allowance (CCA) deductible for tax purposes	\$ 30,000
Taxable income ($\$100,000 + \$10,000 - \$30,000$)	\$ 80,000

The difference between CCA and amortization will reverse over time — that is, total amortization will equal total CCA over all years combined. For Chi Corporation, this temporary difference will reverse in 20X3 (in other words, amortization will be greater than CCA in the amount of \$20,000 in 20X3).

Tax rates, all enacted in 20X1: 20X1, 40%; 20X2, 47%; 20X3, 49%.

Income tax expense using:

1. Taxes payable method: \$32,000

This method may be used as GAAP in Canada by private (non-public) companies if the shareholders unanimously agree to this aspect of *differential reporting*.

- The expense equals the taxes that are currently payable.
- $\$80,000 \times 0.4 = \$32,000$
- Journal entry:

Income tax expense	32,000	
Income tax payable		32,000

Comprehensive tax allocation, deferral method:\$40,000

- The expense is accrued regardless of when it will be paid; the current tax rate is used when calculating deferred taxes.
- $\$100,000 \times 0.4 = \$40,000$, or the payable (\$32,000) plus the taxes on all the temporary differences (\$8,000) $(\$30,000 - \$10,000) \times 0.4 = \$8,000$
- Journal entry:

Income tax expense ($\$100,000 \times 0.4$)	40,000	
Income tax payable ($\$80,000 \times 0.4$)		32,000
* Deferred income tax ($\$30,000 - \$10,000$) $\times 0.4$		8,000

Comprehensive tax allocation, liability method:\$41,800

- The expense equals the taxes that are currently payable plus all the temporary differences multiplied by the rate in effect when the temporary differences will reverse. This amount is the expected future cash outflow.
- This method is Canadian GAAP (for all but those who adopt the taxes payable method as differential disclosure).
- $\$32,000 + \$9,800 = \$41,800$
 $\$80,000 \times 0.4 = \$32,000$
 $(\$30,000 - \$10,000) \times 0.49 = \$9,800$
- Journal entry:

Income tax expense	41,800	
Income tax payable ($\$80,000 \times 0.4$)		32,000
* Future income tax liability ($\$30,000 -$ $\$10,000$) $\times 0.49$		9,800

- * Notice the name change for the non-current tax amount: "deferred income tax" has become a "future income tax liability."

For the next two parts, assume that the \$20,000 net temporary difference will reverse: \$15,000 in 20X3 and \$5,000 in 20X7. An appropriate interest rate is 10%.

1. Partial tax allocation, liability method: \$39,350

- The expense equals the taxes that are currently payable plus those temporary differences expected to reverse in a given time frame (in this example, we will set the limit as five years). Because the liability method is used, the temporary differences are multiplied by 49%, the expected future tax rate.
- $\$32,000 + \$7,350 = \$39,350$
 $\$15,000 \times 0.49 = \$7,350$
- Journal entry:

Income tax expense	39,350
Income tax payable ($\$80,000 \times 0.4$)	32,000
Future income tax liability ($\$15,000 \times 0.49$)	7,350

- Here, only some of the temporary differences give rise to future income tax — those that will reverse "soon." The rest are not part of future income tax or income tax expense.

Partial tax allocation, liability method, discounting: \$38,075

- The expense equals taxes that are currently payable plus those temporary differences expected to reverse in a given time frame, using the future tax rate, and discounted to the present.
- $\$38,074 = \$32,000 + \$6,074$
 $(\$15,000 \times 0.49) \times 0.82645^* = \$6,074$
 $* PV1, 10\%, 2 \text{ periods} = 0.82645$
- Journal entry:

Income tax expense	38,074
Income tax payable ($\$80,000 \times 0.4$)	32,000
Future income tax liability ($\$15,000 \times 0.49 \times 0.82645$)	6,074

6.3 Tax allocation – Canadian practice



Learning objective

- Determine the appropriate accounting treatment for income taxes in accordance with Canadian standards, recognizing permanent and temporary differences. (Level 1)



Required reading

- Chapter 15, pages 909-917, 920-922 ("Shortcut approach"), 926-928 (Review problem), and 948 (Assignment A15-24) (Carefully study the sections of the text that deal with each of the steps as you work through the material.)

LEVEL 1

If the taxes payable method is used, tax expense equals tax payable. With tax allocation methods, future income tax caused by temporary differences is also included in tax expense.

Remember the general approach for the liability method:

Step 1 Calculate tax payable.

Step 2 Calculate the change in the (balance sheet) future tax assets and liabilities.

Step 3 Combine tax payable from Step 1 and the changes in the balance sheet from Step 2 accounts to calculate the income tax expense.

Examination of the three steps follows:

Step 1: Income tax payable

You must be able to calculate income tax payable. To do this, you have to calculate taxable income and then multiply by the tax rate. Taxable income is defined as follows:

Accounting income
plus non-deductible accounting expenses,
less tax deductible expenses not on the income statement,
less non-taxable revenues,
plus taxable revenues not on the income statement

Study the text material on pages 909-910, then work through the following activity.

Activity 6.3-1: Calculating income tax payable

Data

Maroun Corp., 20X3

Accounting income before tax	\$ 117,000
Tax rate, constant in all prior years	40%

Other information:

Amortization	\$ 30,000* (CCA, 40,000)
Golf dues	7,000*
Interest on overdue taxes	5,000*
Dividend income from taxable Canadian corporation	2,000*
Warranty expense (accrued but not yet paid)	7,000*
Warranty claims paid	3,000

* These accounting revenues/expenses have been appropriately included in the determination of the \$117,000 accounting income figure.

The 12-month warranty is new this year. Warranty claims are tax deductible only when paid. The future tax liability on the balance sheet is \$30,000 at January 1, 20X3, based on the difference between NBV (\$610,000 on January 1) and UCC, \$535,000 [that is, $(\$535,000 - \$610,000) \times 0.40 = \$30,000$].

Identify the permanent differences and the temporary differences and calculate the income tax payable.

[Solution](#)**Step 2: Change in future income tax**

The second step is to calculate the change in the balance sheet future tax assets and liabilities. You must identify items on the balance sheet that cause future income tax. Any balance sheet account for which the tax basis and accounting basis are different *as the result of a temporary difference* must be included in the tax calculations. Examples include

- capital assets' net book value
- construction-in-progress inventory when the percentage of completion method is used for accounting
- warranty liability, and so on.

After you study the text material (pages 910-915), work through the following activity.

Activity 6.3-2: Tax basis and accounting basis

Determine the tax basis and the accounting basis in each of the following situations.

Situation 1: Cost of capital asset: \$560,000; Amortization to date, \$239,000; CCA to date, \$300,000.

Situation 2: Opening warranty liability per the accounting records: \$56,000; Warranty expense for accounting purposes this year, \$35,000; claims paid, \$31,000.

Situation 3: Long-term sale recognized on the books, account receivable due in three years: \$400,000.

Solution

If the future income tax amount is an asset, there must be reasonable evidence to suggest that the company will have reversal of the difference. Otherwise, the asset fails recognition criteria and cannot be recorded.

You have to prepare a schedule that compares tax and accounting bases, calculate the closing balance in the future income tax account, compare that balance to the opening balance, and then determine the adjustment needed.

For the data in Activity 6.3-1, future income tax is as follows:

20X4	Tax basis	Accounting basis	Temporary difference	Future tax liability	Opening balance	Adjustment
Capital assets	\$495,000 note 1	\$580,000 note 2	(\$85,000)	(\$34,000) note 3	(\$30,000) note 4	(\$4,000)
Warranty	0	(4,000) note 5	4,000	1,600 note 6	0	1,600

1 \$535,000 less CCA, \$40,000

2 \$610,000 less amortization, \$30,000

3 \$85,000 times tax rate, 40%

4 Given, or $(\$535,000 - \$610,000)$ times opening tax rate, 40%

5 Expense less claims paid, \$7,000 – \$3,000

6 \$4,000 times tax rate, 40%

Look at this table carefully. To construct the table, note the following points:

1. The first column is for tax basis, and the second for accounting basis. Remember to put *credits in brackets*.
2. In the third column, you enter the difference, which represents the cumulative temporary differences to date. *Keep the brackets straight* — credit and negative amounts show up in brackets. (For example, if you subtract a negative number, you will add. Look at the third column on the warranty line above.)
3. Multiply the difference by this year's enacted tax rate, as the best estimate of the future rate, to get the closing balance in the future income tax account. This is the balance sheet position at the end of the year.
4. Compare this to the opening balance in the account and get the journal entry required. That is, the last column tells you the adjustments, debit and credit, to put into the journal entry in Step 3.

Step 3: Combine the calculations in a journal entry

Step 3 is to calculate income tax expense by combining steps 1 and 2. That is, the income tax expense is the total of the payable and the effect of the change in future income tax. This should be straightforward.

Remember that, if the tax rate has not changed during the period, there is a shorter and simpler way to do the calculation in part 2 (the shortcut approach). The following activity provides a complete illustration of the three-step method.

Note: Read pages 915-917 and the shortcut approach (pages 920-922) before you work through Activity 6.3-3.

Activity 6.3-3: Three-step method for tax allocation

Data

DOC Ltd., 20X2

Accounting income before tax	\$ 80,000
Tax rate	45%

The following accounting revenues/expenses have been included in determining the \$80,000 income figure:

Tax-free portion of capital gain	\$ 10,000
Non-tax-deductible entertainment expenses	4,000
Amortization	26,000 (CCA, \$32,000)

At the beginning of the year, the future tax liability on the balance sheet was \$20,000. The NBV of capital assets was \$450,000, while the UCC (the tax equivalent of NBV) was \$400,000. This means that, over time, CCA has been \$50,000 *higher* than amortization; UCC is thus lower than NBV and the tax rate has been 40% ($\$20,000 \div \$50,000$).

Step 1

Calculate tax payable.

[Solution](#)

Step 2

Prepare future income tax table.

[Solution](#)

Step 3

Prepare a journal entry for tax expense.

[Solution](#)

Review problems

Work through the review problem on pages 926-928 of the textbook. As a final example of these calculations, refer to Assignment 15-24 on page 948. Calculate tax payable, the future income tax table, and journal entries to record tax expense. Refer to the following solution when you complete your work.

[Solution](#)

6.4 Investment tax credits



Learning objective

- Prepare the appropriate journal entries to record investment tax credits, and explain the substance of the benefit received. (Level 2)



Required reading

- Chapter 15, Appendix, pages 929-932

LEVEL 2

An **investment tax credit** is a reduction to taxes otherwise payable due to an expenditure on capital assets. For example, assume that a corporation spent \$100,000 on an asset eligible for a 10% investment tax credit. The corporation can make the following journal entry:

Income tax payable	10,000	
?		10,000

What should be credited? At one point in time, corporations were permitted to credit income tax expense and thus enjoyed the effect of increasing current income by the amount of the investment tax credit. This was called the **flow-through method**.

It seems obvious, though, that the investment tax credit is a reduction of the cost of the asset — and an application of the proprietary view leads to the conclusion that this asset cost *the owners* \$90,000. Alternatively, the entity view would conclude that this \$100,000 asset was financed \$90,000 by the owners and \$10,000 by another stakeholder, the government. According to this view, the \$10,000 would be considered to be some sort of contributed capital.

In any event, Canadian GAAP prohibits the flow-through method and requires that the investment tax credit be credited directly to the asset or credited to a deferred charge, a contra account to the asset. This is the **cost reduction** approach.

Thus the journal entry would be as follows:

Income tax payable	10,000	
Capital asset		10,000

6.5 Tax losses



Learning objective

- Explain the impact of operating losses (both loss carrybacks and loss carryforwards) for tax purposes on the financial statements. (Level 2)



Required reading

- Chapter 16, pages 954-968

LEVEL 2

Since tax losses are quite complicated, this topic provides an example to clarify and reinforce these accounting rules. Your responsibility in this area is to *explain policy*, and *the impact of that policy in the financial statements*. In other words:

- What policy choices are available to companies in a loss situation?
- What will happen in the financial statements as a result of those policy decisions?

Note: You are not responsible for calculations in this area, although some calculations will be used to illustrate the concepts.

Journal entries are provided in the following example but you are not asked to prepare entries. Focus instead on the elements of financial statements that change.

Example 6.5-1: Accounting for tax losses

Carroway Corporation was started in Year 1.

Data for Carroway Corp.			
Year	1	2	3
Accounting income (loss)	\$ 100,000	\$ (400,000)	\$ 600,000
Amortization expense, included in accounting income	\$ 10,000	\$ 10,000	\$ 10,000
CCA claim	\$ 40,000	—*	\$ 35,000
Tax rate	40%	40%	40%
Net book value, end of year	\$ 140,000	\$ 130,000	\$ 120,000
UCC, end of year	\$ 110,000	\$ 110,000	\$ 75,000

* Management decision not to claim CCA in order to minimize tax loss.

Changes in carrying values and tax bases

	Tax basis	Carrying value	Temporary difference	Year-end balance (40%)	Opening balance	Adjustment
Year 1 Capital assets	\$110,000	\$140,000	\$(30,000)	(12,000) ¹	—	\$(12,000)
Year 2 Capital assets	110,000	130,000	(20,000)	(8,000) ²	\$(12,000)	4,000
Year 3 Capital assets	75,000	120,000	(45,000)	(18,000) ³	(8,000)	(10,000)

¹ Tax rate at 40% (30,000) × 0.40 = (12,000)

² (20,000) × 0.40 = (8,000)

³ (45,000) × 0.40 = (18,000)

Year 1

In Year 1, its first year of operation, Carroway earned \$100,000 and had taxable income of \$70,000 (\$100,000 + \$10,000 – \$40,000). It paid taxes of \$28,000 [(\$100,000 + \$10,000 – \$40,000) × 0.40]. Future income tax liabilities amounted to \$12,000, and an expense of \$40,000 was recorded:

Year 1 entry:

Income tax expense	40,000	
Income tax payable		28,000
Future income tax liability		12,000

Financial statement impact

As a result of this entry, net income (and retained earnings) is reduced by \$40,000, and liabilities, both tax payable (28,000) and future income tax (12,000) combined, have increased a total of \$40,000.

Year 2

In Year 2, Carroway lost \$400,000. Claiming CCA is optional. The *Income Tax Act* stipulates the maximum capital cost allowance that can be claimed in any year, but the company is under no obligation to claim the expense for tax purposes. In a loss year, claiming CCA increases the tax loss. Since a tax loss will expire at the end of 20 years (it can be carried back 3 years and forward 20, then it expires), tax losses are lost forever if not used in the 20-year period. Thus, companies frequently elect not to claim CCA in a loss year in order to reduce the loss and the risk of expiration. This is a management decision. (For the purposes of this course, you will always be told what decision has been made.)

After adding back amortization of \$10,000, the *tax loss* was \$390,000 [(\$400,000) + \$10,000]. The tax loss can be used to obtain a refund of taxes paid during the past three years (carryback) and/or to avoid having to pay taxes over the next 20 years (carryforward).

The *tax benefit* is the amount saved by using the taxable loss. The size of the tax benefit depends on the tax rate in effect. Here, the tax rate is 40% in all years, so the benefit is \$156,000 ($\$390,000 \times 0.40$).

What do you do with a tax loss?

1. Carry it back three years to recover taxes paid. This is called a **tax loss carryback** (LCB). Taxes receivable are debited for the appropriate amount.
2. Carry it forward ten years to offset taxes that would be payable on (subsequently earned) taxable income. This is a **tax loss carryforward** (LCF). Debit a "Future income tax asset." Obviously, this is only an asset if the company earns adequate taxable income during the carryforward period to use the tax loss. It can only be recognized if it is *more likely than not* that it will be used. This is defined as a greater than 50% probability of use.

Year 2 entry:

Future income tax liability	4,000	
Income taxes receivable	28,000	
Future income tax asset (LCF)	128,000	
Income tax expense (I/S) (recovery)		160,000

Tax loss	\$ 390,000		
Carryback	<u>(70,000)</u>	× 0.40	\$ 28,000
Carryforward	<u>\$ 320,000</u>	× 0.40	<u>128,000</u>
			<u>\$156,000</u>

Notes:

- The debit to "future income tax liability" is established by the temporary difference that arose during the year: the change in tax basis compared to carrying value of the capital assets. See the calculation of \$4,000 in the table in Example 6.5-1. It is recorded irrespective of the tax loss.
- Carroway cannot get back more cash than it paid out. It paid \$28,000 in Year 1, its only prior year, and it can get a refund for this amount.
- The future income tax asset — use of the LCF — is assumed to be "more likely than not," so it is recognized.
- The Year 3 tax rate is used to measure the benefit of the tax LCF. Future enacted tax rates may be used. If no future tax rates were enacted, the current year rate of 40% would be used.

Financial statement impact

As a result of this entry, net loss is reduced (and retained earnings increased) by \$160,000. A current asset, tax receivable, is recognized, and a future income tax asset, likely long-term, is established. The future income tax liability caused by capital asset temporary differences is reduced by \$4,000.

Year 3

In Year 3, Carroway returns to profitability and records the following entry, ignoring the tax LCF for now:

Income tax expense	240,000	
Income tax payable ¹		230,000
Future income tax liability ²		10,000

1 Taxable income is \$575,000 (\$600,000 + \$10,000 – \$35,000); tax payable is \$575,000 × 0.40 = \$230,000.

2 From table in Example 6.5-1.

Of course, not all the \$230,000 is payable, because there is a tax LCF. Both the taxes payable and the carryforward benefit are recorded at the same tax rate, 40%, and so the second journal entry nets them as follows:

Income tax payable	128,000	
Future income tax asset (LCF)		128,000

The net payable is now \$102,000 (\$230,000 – \$128,000).

Financial statement impact

As a result of these two entries, Year 3 tax expense is recognized, reducing net income and retained earnings. The future income tax asset, the LCF, is eliminated as it is used, and the net liability of \$102,000 is recorded, increasing liabilities. The future income tax liability related to capital assets increases.

Special circumstances

Now, consider some special circumstances:

1. What happens when a company fails the "more likely than not" (greater than 50%) criterion in the loss year and can't record some or all of the LCF?

This happens when future profits are uncertain; the asset is not recorded and the (credit) income tax expense is reduced.

For Carroway, in Year 2, if future realization was improbable, the following entry would be made:

Future income tax liability	4,000	
Income taxes receivable	28,000	
Income tax expense (I/S)(recovery)		32,000

Carroway could record some of the LCF if some of it were deemed likely (probable) to be realized.

Financial statement impact

As a result of this entry, net loss is reduced (and retained earnings increased) by \$32,000. A current asset, tax receivable, is recognized. The future income tax liability caused by capital asset temporary differences is reduced by \$4,000. However, this is far short of the reduction to tax, and the increase in assets that would be possible if the LCF could be recognized.

2. What happens when the LCF is eventually used, if it is not recorded?

Assume that the loss was not recorded, but is used in Year 3. The regular entry for Year 3 income tax would be recorded as illustrated in point 1. This results in tax expense of \$240,000. Then, the LCF entry is as follows:

Income tax payable	128,000	
Income tax expense (I/S)(recovery)		128,000

Financial statement impact

As a result of this entry, the income tax payable amount is reduced by \$128,000. Both net income and retained earnings are increased by the amount of the LCF. That is, the income statement reports a credit item, relating to the benefit of the LCF, when it is used. This results in a (perhaps significant) boost to earnings in this time period.

3. What if a company fails the "more likely than not" criterion in the loss year, but things look different in a later year? The LCF hasn't been used, but it now appears probable that it will be used. Can it be recognized?

Yes, an unrecorded LCF can be recognized as soon as conditions indicate that its realization is probable. In this case, an entry would be made as follows:

Future income tax asset (LCF)	128,000	
Income tax expense (I/S)(recovery)		128,000

This means that the value of the benefit is not recognized in the year of the loss or even necessarily in the year in which it is used. The credit on the income statement, the negative tax provision, is recognized when the company's outlook improves to the point where realization is more likely than not.

Financial statement impact

As a result of this entry, a future income tax asset is recognized, in the amount of \$128,000. Both net income and retained earnings are increased by the amount of the LCF. That is, *the income statement reports a credit item, relating to the benefit of the LCF, when it is recorded.* This results in a (perhaps significant) boost to earnings in this time period.

4. What happens if Carroway recorded the LCF before it was used, but then the probability of use declined?

Financial statement impact

If the value of the asset becomes doubtful, all or part of it must be written off. This results in a decline in the asset and loss recognition on the income statement.

5. What happens if Carroway records the LCF at 45% but, in the next year, the tax rate changes and becomes 46%?

Financial statement impact

The asset is increased by the 1% increase in the tax rate, because the LCF is now "worth more." This increase is recorded as an income statement item, a credit within the income tax section.

6. Is there any way that Carroway can carry *more* of the *loss back*? (This issue is reviewed on page 960 of the text.)

Companies can *re-file* prior tax returns to eliminate CCA claimed. This increases prior taxable income and increases the amount of tax loss that can be used as an LCB. However, it does not result in any higher refund for the company, since the company still can only get back what it paid. It will reduce the NBV/UCC difference, though, and minimize the LCF. Why would companies want to minimize an LCF? Remember, it will expire at the end of the 20th year and be lost forever.

The decision to re-file a tax return, eliminating CCA, and using more LCBs, is a tax planning decision that a company must make after giving careful consideration to its future income potential. You will always be told of the decision that a company has made.

Financial statement impact

In these circumstances, the future income tax item related to capital assets would be debited for the tax value of the eliminated CCA. This would reduce a credit balance, or perhaps create a debit balance. If the loss were used in this way, there would be a lower amount available as an LCF asset.

Financial statement impact

In these circumstances, the future income tax item related to capital assets would be debited for the tax value of the eliminated CCA. This would reduce a credit balance, or perhaps create a debit balance. If the loss were used in this way, there would be a lower amount available as an LCF asset.

Policy areas

There are several policy decisions covered by this discussion:

1. When there is a tax loss, a company must decide whether to use it as a loss carryback (creating a tax receivable asset), or a loss carryforward (potentially a future income tax asset).
2. When there is a tax loss, a company must decide whether to claim CCA in the loss year. Claiming CCA is optional, and any claim made will increase the loss carryforward. The LCF may expire after 20 years, which presents a risk.
3. When there is a tax loss, a company must decide whether to refile prior CCA (reduce or eliminate CCA claimed in carryback period). This increases the amount of loss used as a carryback, and reduces the loss carryforward. Again, this is desirable if there is risk that the loss carryforward will not be used in the expiration period.

4. When there is a tax loss carryforward, the company must decide whether it can be recorded or not. This decision is based on the likelihood that the loss carryforward can be used in the 20-year carryforward period. The probability of use must be greater than 50%.
5. If the loss carryforward is recorded, the company must decide, in every subsequent year that the loss remains unused, whether there is still a greater than 50% probability of use. If not, then the LCF asset must be all or partially written off.
6. If the loss carryforward is *not* recorded, the company must decide, in every subsequent year that the loss remains unused, whether there is still a less than 50% probability. If the probability has shifted, then the LCF asset must be all or partially recognized.

Make sure you can trace the implications of these policies through the financial statements, as described throughout this topic.

6.6 Disclosure, cash-flow statement, IFRS, and QOE



Learning objective

- Explain financial statement disclosure required for income tax, assess tax related quality of earnings issues, and explain IFRS governing tax allocation. (Level 1)



Required reading

- Chapter 15, pages 917-920 and 922-925
- Chapter 16, pages 978-981

LEVEL 1

Disclosure

On the income statement, income tax is separately disclosed, with the current and future portions shown separately. On the balance sheet, future income tax may be current or non-current. The classification depends on the balance sheet item that caused the future income tax. If the cause is a current item (for example, warranty liability) then the future income tax is also current; if the balance sheet item is a non-current item (such as capital assets) then the future income tax is also non-current.

Current future income tax is netted with other current future tax accounts, so only one *current* amount is shown. The same is true for *non-current* future income tax. However, current future income tax accounts cannot be netted with non-current future income tax accounts.

In terms of the cash flow statement, a portion of income tax expense is not currently payable; this portion, the change in future income tax assets and liabilities, is a non-cash charge and is adjusted on the cash flow statement. Of course, if income tax payable is still owed, the change in the income tax payable account is also adjusted in the operating activities section.

Quality of earnings

Quality of earnings attempts to assess whether the reported earnings of the company reflects its true economic earnings, and looks at the predictive power of earnings. A major concern of QOE is the relationship between earnings and cash flow from operations. In income tax accounting, the standards reflect a conscious decision to expense a tax number that is different than the tax payable. It might seem that this practice would decrease the quality of earnings. However, if the reported expense is a better predictor of future cash implications, then QOE would actually be enhanced. There are many academic studies that attempt to measure or assess this phenomenon.

When looking at the various suggested QOE models, future income taxes is often an element assessed. In particular, the growth rate of future income tax is a variable, with persistent high growth negatively weighted. Many of the models measure the correlation between cash flow from operations and net income, with low correlations negatively weighted. The extent of non-cash income tax expense, and a variety of loss carry-forward

issues increase the difference between net income and cash-flow from operations. Accordingly, income tax accounting can be a major element in QOE assessment.

Reconciliation of effective tax rates

Public companies have slightly more onerous disclosure requirements related to temporary differences and reconciliation of tax rates. This disclosure is described on pages 919-920 of the text

Focus on IFRS



Note: The following paragraphs provide further details on the international standards governing income tax and private enterprise reporting initiatives. This material is **non-examinable**, but you are responsible for this content on the assignments.

International standards

Refer to your textbook on pages 924-925 and 981 for a discussion on the differences between Canadian and IFRS, and other accounting practices worldwide. In essence, there are no substantive differences between current Canadian standards and the IFRS position. There are some wording changes, with "future income taxes" (Canadian) reverting back to the more traditional "deferred taxes" (IFRS), and recognition criteria for tax assets referred to under IFRS as "probable" instead of the Canadian "more likely than not". These differences do not seem problematic.

Accounting for income taxes is on the IFRS agenda as a long-term project. Given the diversity in current practice around the world, there is potential for change in the area.

Private Enterprise Reporting Initiative

Private companies will not be required to follow IFRS in 2011. Instead, these companies will conform to a modified version of existing Canadian GAAP, at least during a transition period. One of the proposals being considered is that private companies would no longer follow comprehensive tax allocation. Instead, these companies would follow the more straight-forward taxes payable (flow-through) method. This would essentially eliminate future income tax on their financial statements. For an update on the status of the Private Enterprise Reporting Initiative, refer to the [Accounting Standards Board](#) website.

Module 6 self-test

Question 1

Tri-White Corporation operates a tourist railway that runs through Alaska, British Columbia, and the Yukon. Tri-White is also a major shareholder of Club-Link Corporation, a company that is Canada's largest owner, operator, and developer of member-based golf clubs. In 2007, Tri-White increased its ownership of Club-Link Corporation from 39% to 71%. At this level of ownership consolidated financial statements must be prepared, which include the financial statement elements of both companies added together, with certain adjustments.

Required

1. Access the 2007 financial statements of Tri-White using www.sedar.com. The financial statements were posted on March 28, 2008. Refer to the income statement, balance sheet, and Note 13 on income taxes.
2. What percentage of debt is represented by future income tax liabilities in 2006 and 2007? Identify the source of the FIT liabilities. Over what term will these future tax liabilities reverse?
3. Looking at the provision for income tax on the income statement, compare the provision for income tax with earnings before income tax in each year presented. What portion of income tax is currently payable?
4. Explain the company's accounting for non-capital tax losses. Why are these tax losses not recorded? Why would the company have a current tax expense when they have tax losses?
5. Comment on QOE in relation to income taxes for Tri-White.

[Solution](#)

Question 2

Assignment 15-2, page 939

[Solution](#)

Question 3

Assignment 15-7, page 941

[Solution](#)

Question 4

Assignment 15-15, pages 944-945

[Solution](#)

Question 5

Assignment 15-28, pages 949-950

Note: The tax treatment for the lease and pension amounts is described in the question. Add back the accounting expense and deduct cash paid to calculate taxable income. In determining future income tax, the tax basis is zero, and there is a pension asset of \$3,648 on the books. For the lease, the tax basis is zero, but for the accounting basis, there are net lease accounts with a \$6,700 debit balance.

[Solution](#)

Question 6

Assignment 15-29, page 950

[Solution](#)

Question 7

Questions 16-3, 16-5, 16-11, 16-13, 16-17, pages 985-986

[Solution](#)

Question 8

Assignment 16-1, page 990

[Solution](#)

Module 6 summary

You will find summaries of key points on pages 925-926, 932, and 981-982.

Explain permanent and temporary differences between accounting and taxable income

- Accounting income and taxable income are different because of *permanent* differences and *temporary* differences.
- Permanent differences include
 - items of revenue, expense, gains, or losses that are reported for accounting purposes but never enter into the computation of taxable income
 - rare items that enter into taxable income but are never included in accounting income
- Temporary differences arise when
 - the tax basis of an asset or liability is different from its carrying value in the financial statements;
 - components of accounting income are entered into the computation of taxable income, but in a different period.

Explain the characteristics of future income taxes, and describe the major alternatives for accounting for corporate income tax

- The taxes payable method is allowed for private companies in Canada with shareholder approval.
- Other alternatives include
 - comprehensive tax allocation - using either the liability or accrual method (Canadian GAAP) or the deferral method
 - partial tax allocation
- Future income tax may also be discounted.

Determine the appropriate accounting treatment for income taxes in accordance with Canadian standards, recognizing permanent and temporary differences

- The objective of *comprehensive interperiod income tax allocation* is to recognize the income tax effect of every item recognized in accounting net income. This results in recognition of future income tax (FIT).
- The effects of temporary differences are measured
 - using tax rates when the item originated (deferral method), or
 - using tax rates expected when the item reverses (liability or accrual method).
- The liability or accrual method is Canadian GAAP.
- Under the liability method, use the currently enacted or substantially enacted rate that will apply in the period that the temporary difference is expected to reverse.
- Balances in FIT are updated annually to new tax rates.
- FIT is a *current* asset/liability if the temporary differences are caused by a current

asset or liability.

- FIT is long-term if caused by long-term assets or liabilities.
- Current FITs can be netted with other current FITs. The same applies to non-current FITs.
- To calculate income tax expense:
 1. Calculate tax payable.
 2. Calculate the change in future income tax. (There is a table that aids the calculation.)
 3. Combine 1 and 2 to obtain tax expense.

Prepare the journal entries to record investment tax credits, and explain the substance of the benefit received

- Investment tax credits are reductions of tax caused by capital expenditure.
- The tax credit is recorded as a reduction to capital assets or in a separate deferred credit.
- It is amortized over the life of the asset.

Explain the impact of operating losses (both loss carrybacks and loss carryforwards) for tax purposes on the financial statements

- Tax losses may be carried back and offset against taxable income in the three previous years (LCB).
- Taxes receivable for the three prior years are based on the tax actually paid.
- Then, the tax loss may be carried forward for 20 years (LCF).
- If the tax loss is not used within this period, it expires.
- The future benefits of tax loss carryforwards should be recognized in the year of the loss *only* if there is a greater than 50% probability that the benefits will be realized.
- An unrecognized LCF can be set up in years following the loss if the probability of realization becomes greater than 50%.
- In a year that a LCF is recognized, a tax recovery is recorded on the income statement.
- If the likelihood shifts to less than 50%, the recorded LCF has to be written off. This results in an expense in the income statement.

Explain financial statement disclosure required for income tax, assess tax related quality of earnings issues, and explain IFRS governing tax allocation

- Companies must disclose income tax expense (current and future) and the effect of LCF recognition.
- On the balance sheet, future income tax is classified as current or non-current based on the classification of the balance sheet account that caused the future income tax balance.

- Unrecognized LCFs are disclosed in the notes.
- *Public companies* must reconcile the difference between the effective tax rate reported in the financial statements and the statutory rate.
- The effective tax rate is the income tax expense (including future income taxes) divided by the pre-tax net income.
- The cash flow statement will include only the amounts of income tax actually paid or received for the year.
- All allocations, whether for temporary differences or for tax loss carryforwards, must be adjusted.
- QOE issues arise when there is a significant build-up of future income tax and/or when income tax affects the relationship between net income and cash-flow from operations.
- IFRS and Canadian GAAP are largely consistent, with changes in terminology.

Activity 6.2-1 solution

The journal entries to record tax expense:

Deferral method		Liability method	
Income tax expense ¹	23,500	Income tax expense	23,500
Income tax payable ²	18,800	Income tax payable	18,800
Deferred income tax ³	4,700	Future income tax liability	4,700
		Income tax expense ⁴	7,000
		Future income tax liability	7,000

¹ $\$50,000 \times 0.47$

² $(\$50,000 - \$10,000) \times 0.47$

³ $(\$10,000 \times 0.47)$

⁴ $(\$100,000) (0.47 - 0.40)$

The two entries in the liability method are usually combined. They've been separated here for emphasis. In this simple example, the two methods differ only because of the second entry. Under the liability method, the opening balance of the future income tax liability (or asset) is updated to the new tax rate, if any, annually. Thus, all cumulative temporary differences are measured at *one* tax rate, the enacted rate of 47%. Using the deferral method, each time new temporary differences are added they are recorded at the rate in effect at the time they originated, with the result that the deferred tax account is built in layers of different rates (some at 40%, some at 47%, and so on). This makes things complicated when the temporary differences reverse since the weighted average rate of accumulation must be used for such reversals.

Activity 6.3-1 solution

Accounting income before taxes	\$117,000
Permanent differences:	
Golf dues	7,000
Interest on tax	5,000
Dividend income	(2,000)
Temporary differences:	
Amortization	30,000
CCA	(40,000)
Warranty expense	7,000
Warranty claims paid	<u>(3,000)</u>
Taxable income	<u>\$121,000</u>
Tax payable, 40%	<u>\$ 48,400</u>

The permanent differences are either tax-free revenues or non-deductible expenses; they are included in the calculation of taxable income but do not create future income tax. Golf dues, interest on overdue taxes, and dividend income are non-tax-deductible expenses/non-taxable revenue. The temporary differences are amortization and warranty costs. They also affect the calculation of tax payable and create future income tax.

In Canada, accounting for income tax is based on the premise that tax expense should essentially be based on accounting income, even though taxes are paid on taxable income. Canadian accounting standards dovetail in most respects with the comparable U.S. standards.

Differential reporting

Private Canadian companies whose shareholders unanimously agree may adopt *differential reporting* in this area. If differential reporting is used, the very simple taxes payable method can be used.

If you were using the taxes payable method, this is where you would stop. Income tax expense would be \$41,600 on ordinary income and \$6,800, in total, on the discontinued operation. For many private Canadian companies that adopt differential accounting in this area, this will be the result.

Activity 6.3-2 solution

Situation	Tax basis	Accounting basis
1	260,000	321,000
2	0	60,000
3	0	400,000

Situation 1

Accounting basis: \$321,000 dr. ($\$560,000 - \$239,000$)

Tax basis: \$260,000 dr. ($\$560,000 - \$300,000$)

Situation 2

Accounting basis: \$60,000 cr. ($\$56,000 + \$35,000 - \$31,000$)

Tax basis: zero. (The expense for tax is always equal to claims paid.)

Situation 3

Accounting basis: \$400,000 dr.

Tax basis: zero. No revenue is yet recognized and thus no receivable exists. Revenue is recognized on cash collection.

Activity 6.3-3 solution: Step 1

Tax payable:

Accounting income	\$ 80,000
Permanent differences:	
Tax-free portion of capital gain	(10,000)
Entertainment expenses	4,000
Temporary differences:	
Amortization	26,000
CCA	(32,000)
Taxable income	\$ 68,000
Tax payable, 45%	\$ 30,600

Activity 6.3-3 solution: Step 2

Future income tax:

20X2	Tax basis	Accounting basis	Temporary difference	Future tax liability	Opening balance	Adjustment
Capital assets	\$368,000 note 1	\$424,000 note 2	(\$56,000)	(\$25,200) note 3	(\$20,000) note 4	(\$5,200)

1 \$400,000 – \$32,000

2 \$450,000 – \$26,000

3 \$56,000 × 0.45

4 given, but also (\$400,000 – \$450,000) × 0.4

There are two components to the \$5,200 change in the future tax liability:

Increase in opening balance ⁵ (\$50,000 × 0.05)	\$ 2,500
Current year difference ⁶ (\$6,000 × 0.45)	<u>2,700</u>
	<u>\$ 5,200</u>

5 Also called "future income tax expense resulting from increase in tax rate."

6 Also called "future income tax expense relating to originating temporary difference."

Since the two components are not treated any differently in the tax entry, they need not be calculated separately.

Activity 6.3-3 solution: Step 3

Calculate income tax expense in a journal entry.

Income tax expense ($\$30,600 + \$5,200$)	35,800	
Income tax payable		30,600
Future income tax liability — amortization		5,200

Assignment 15-24 solution*Step 1 — Income tax payable*

Income tax payable:	Year 1	Year 2
Accounting income	\$1,300,000	\$1,550,000
Permanent difference:		
Entertainment	42,000	—
Temporary difference:		
Depreciation	140,000	140,000
CCA	(67,000)	(370,000)
Warranty expense	357,000	387,000
Warranty claims	<u>(264,000)</u>	<u>(342,000)</u>
Taxable income	<u>\$1,508,000</u>	<u>\$1,365,000</u>
Income tax payable (rate 35%; 37%)	<u>\$ 527,800</u>	<u>\$ 505,050</u>

Step 2 — Change in future income tax

	Tax basis	Accounting basis	Temporary difference	Future tax (liab)/asset	Opening balance	Adjustment
<i>Year 1 35%</i>						
Cap. assets	\$893	\$820	\$73	\$25.55	0	25.55
Warranty	0	(93)	93	32.55	0	32.55
<i>Year 2 37%</i>						
Cap. assets	523	680	(157)	(58.09)	25.55	(83.64)
Warranty	0	(138)	138	51.06	32.55	18.51

	Year 1	Year 2
Income tax payable	\$527,800	\$505,050
Change in future tax:		
Depreciation vs CCA (1)	(25,550)	83,640
Warranty	<u>(32,550)</u>	<u>(18,510)</u>
Income tax expense	<u>\$469,700</u>	<u>\$570,180</u>

Step 3 — Journal entries

<u>Year 1</u>		
Income tax expense	469,700	
Future income tax — current	32,550	
Future income tax — non-current	25,550	
Income tax payable		527,800

Year 2

Income tax expense	570,180	
Future income tax — current	18,510	
Future income tax — non-current		83,640
Income tax payable		505,050

Source: Adapted from *Solutions Manual*, Assignment 15-24, page 847.

Self-test 6

Solution 1

Requirement 1

See the financial statements on www.sedar.com.

Requirement 2

In 2006, FIT was 40% of debt (\$17,055 / \$42,331). In 2007, FIT was 2.5% of debt (\$11,991 / \$472,570). FITs are lower in 2007 in dollar value, however, the real reason for the decline in the percentage was that the company began consolidating its financial statements in 2007 with those of Club-Link, and there are many new liabilities on the balance sheet.

The primary sources of FIT, according to Note 13, are capital assets (credit) and a small amount of loss carryforwards (debit). FIT related to capital assets reverses over the life of the capital assets. FIT related to losses reverses when the loss is used.

Requirement 3

On the income statement, income tax is 46% (\$10,524 / \$22,793) in 2007. In 2006, the percentage is 27% (\$6,704 / 24,775). In 2007, approximately half of the income tax provision is current, and half is future. In 2006, the bulk of income tax expense is current with a small reversal of FIT.

Requirement 4

In Note 13, the company discloses that it has unrecognized tax losses in the amount of \$24.5 million dollars. It also has unrecognized capital losses of \$6.5 million. These losses are not recorded because they must pass the test of being "more likely than not" in order to qualify for recognition. The company reports that realization of the future benefit is uncertain. The most likely explanation for the presence of a current tax expense in the presence of such significant losses is that the losses are in one company (presumably the subsidiary) and there is taxable income in the parent company.

Requirement 5

Income tax is a significant expense on the income statement for this company. Tax expense does not show a stable relationship (%) between earnings before income tax and the provision for tax. This makes the financial statements difficult to interpret and reduces QOE.

The company, or at least one of its subsidiaries, can earn a significant level of earnings in the future and be subject to no tax because of the large tax carryforwards. Furthermore, if the company reaches the point that the balance of probability shifts to "likely", the tax loss carryforwards can be recorded and income will show a significant boost at this point in time.

Self-test 6

Solution 2

1. The taxes payable method is supported by those who want the financial statements to portray cash flow because income tax expense will equal cash paid.
2. Supporters of the taxes payable method suggest that future income taxes are meaningless because aggregate temporary differences in a stable or growing company typically do not reverse and thus the balance sheet amounts have no cash flow effects. They also argue that the liability is not owed to anyone, as the government does not view it as a receivable. The 'liability' is contingent, and payment is unlikely to occur, and thus should not be recognized.
3. There are many versions of partial tax allocation that suggest rules regarding which temporary differences should be recognized and which should not. Those most likely to qualify for recognition are those that are non-recurring and/or likely to reverse in the near future.
4. The major problems when attempting to discount future income tax are estimating the discount rate to use, and projecting the timing of expected reversals.

Source: *Solutions Manual*, Assignment 15-2, page 821.

Self-test 6

Solution 3

Requirement 1

	20X4	20X5	20X6	20X7
Revenues	\$110,000	\$124,000	\$144,000	\$164,000
Expenses (other than depreciation)	(80,000)	(92,000)	(95,000)	(128,000)
Depreciation, straight line	<u>(10,000)</u>	<u>(10,000)</u>	<u>(10,000)</u>	<u>(10,000)</u>
Pretax accounting income (given)	<u>20,000</u>	<u>22,000</u>	<u>39,000</u>	<u>26,000</u>

Temporary differences for depreciation:

Add accounting depreciation expense	10,000	10,000	10,000	10,000
Less capital cost allowance	<u>(16,000)</u>	<u>(12,000)</u>	<u>(8,000)</u>	<u>(4,000)</u>
Net temporary difference	<u>(6,000)</u>	<u>(2,000)</u>	<u>2,000</u>	<u>6,000</u>
Taxable income	<u>\$14,000</u>	<u>\$20,000</u>	<u>\$41,000</u>	<u>\$32,000</u>

Computation of income tax payable:

Taxable income	\$14,000	\$20,000	\$41,000	\$32,000
Income tax rate	<u>× 0.40</u>	<u>× 0.40</u>	<u>× 0.40</u>	<u>× 0.40</u>
Income tax payable	<u>\$5,600</u>	<u>\$8,000</u>	<u>\$16,400</u>	<u>\$12,800</u>

Net income, taxes payable method

	20X4	20X5	20X6	20X7
Income before income tax	\$20,000	\$22,000	\$39,000	\$26,000
Income tax expense	<u>5,600</u>	<u>8,000</u>	<u>16,400</u>	<u>12,800</u>
	<u>\$14,400</u>	<u>\$14,000</u>	<u>\$22,600</u>	<u>\$13,200</u>

Requirement 2

Future income tax, balance sheet

Net temporary differences (see req 1)	(6,000)	(2,000)	2,000	6,000
Tax rate	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>
Change in period	(2,400)	(800)	800	2,400
Balance in future income tax	<u>(2,400) cr</u>	<u>(3,200) cr</u>	<u>(2,400) cr</u>	<u>0</u>

A table can also be used for calculations:

	Tax basis	Carrying value	Temp diff.	Future tax	Op. bal.	Adjustment
<u>20X4 40%</u> Cap. assets	\$24,000	\$30,000	\$(6,000)	\$(2,400)	0	\$(2,400)
<u>20X5 40%</u> Cap. assets	12,000	20,000	(8,000)	(3,200)	(2,400)	(800)
<u>20X6 40%</u> Cap. assets	4,000	10,000	(6,000)	(2,400)	(3,200)	800
<u>20X7 40%</u> Cap. assets	0	0	0	0	(2,400)	2,400

Income tax expense, liability method of tax allocation (may also be established through a journal entry):

	20X4	20X5	20X6	20X7
Income tax expense:				
Income tax payable	\$5,600	\$8,000	\$16,400	\$12,800
Temporary differences	<u>2,400</u>	<u>800</u>	<u>(800)</u>	<u>(2,400)</u>
	<u>\$8,000</u>	<u>\$8,800</u>	<u>\$15,600</u>	<u>\$10,400</u>

Net income, liability method of tax allocation:

	20X4	20X5	20X6	20X7
Pretax	\$20,000	\$22,000	\$39,000	\$26,000
Income tax expense	<u>8,000</u>	<u>8,800</u>	<u>15,600</u>	<u>10,400</u>
	<u>\$12,000</u>	<u>\$13,200</u>	<u>\$23,400</u>	<u>\$15,600</u>

Requirement 3

The taxes payable method records tax paid as the expense, reflecting cash flow. Tax allocation methods accrue tax as income is recognized for accounting purposes, regardless of when it will be paid. Matching is well served, and future taxes are reflected on the balance sheet, thus providing a more accurate portrayal of the company's financial position. Since all individual temporary differences do reverse, accrual of tax is appropriate.

Source: *Solutions Manual*, Assignment 15-7, pages 825-826.

Self-test 6**Solution 4***Tax calculations:*

	20X1	20X2	20X3
Accounting income before income tax	\$200,000	\$300,000	\$240,000
Temporary difference:			
Revenue recognized	(80,000)	(100,000)	—
Cash received	<u>—</u>	<u>60,000</u>	<u>88,000</u>
Taxable income	120,000	260,000	328,000
Tax rate	<u>40%</u>	<u>40%</u>	<u>36%</u>
Current income tax	<u>\$48,000</u>	<u>\$104,000</u>	<u>\$118,080</u>

Future income tax:

	Tax basis	Accounting basis	Temporary difference	Future tax liability	Opening balance	Adjustment
<u>20X1</u>						
Account receivable	0	\$80,000 ¹	(\$80,000)	(\$32,000)	0	(\$32,000)
<u>20X2</u>						
Account receivable	0	120,000	(120,000)	(48,000)	(32,000)	(16,000)
<u>20X3</u>						
Account receivable	0	32,000	(32,000)	(11,520)	(48,000)	36,480

¹ Year 1: Revenue of \$80,000; no collections. Year 2: \$80,000 + \$100,000 – \$60,000; Year 3: \$120,000 – \$88,000

Journal entry for 20X1

Income tax expense	80,000	
Future income tax liability (80,000 × 40%)		32,000
Income tax payable		48,000

Journal entry for 20X2

Income tax expense	120,000	
Future income tax liability (40,000 × 40%)		16,000
Income tax payable		104,000

Journal entry for 20X3

Income tax expense	81,600	
Future income tax liability	36,480	
Income tax payable		118,080

Source: *Solutions Manual*, Assignment 15-15, page 837

Self-test 6**Solution 5****Income statement presentation:**

**A. GROSSERY LTD.
Partial Income Statement, 20X4**

Net operating income before income tax		\$30,000*
Income tax expense:		
Current	\$ 3,861	
Future	<u>16,139</u>	<u>20,000</u>
Net income before extraordinary item		10,000
Extraordinary gain (net of \$40,000 tax, all future)		<u>60,000</u>
Net income		<u>\$70,000</u>

Balance sheet presentation:

Income tax payable (current liability; $\$3,861 \times 0.25$)		\$ 965
Future income tax liability (long-term liability)		\$56,139
Cash flow statement:		
Operating activities:		
Cash paid for income tax ($\$3,861 \times 0.75$)		\$(2,896)
Supporting schedules:		
Income tax payable:		
Net operating income before tax		\$30,000*
Plus: permanent difference; golf club dues		<u>20,000</u>
Accounting income subject to tax		50,000
Temporary differences:		
Depreciation expense	\$50,000	
Capital cost allowance	(80,000)	
Pension expense	44,747	
Pension funding	(48,395)	
Lease amortization/interest	14,300	
Lease payments	<u>(21,000)</u>	<u>(40,348)</u>
Taxable income from operations		<u>\$ 9,652</u>
Income tax payable ($\$9,652 \times 0.40$)		<u>\$ 3,861</u>

<i>(in 000's)</i>	Tax basis	Accounting basis	Temporary difference	Future tax liability	Opening balance	Adjustment
Cap. assets	\$570	\$600	(\$30)	(\$12.0)	\$0	(\$12.000)
Pension	0	3.648	(3.648)	(1.459)	0	(1.459)
Lease	0*	6.7*	(6.7)	(2.680)	0	<u>(2.680)</u>
						(16.139)
Ex. gain	0	100**	(100)	(40.0)	0	<u>(40.000)</u>
						<u>(\$56.139)</u>

* Tax and accounting basis are given in the question. The accounting basis would be the net difference between the leased asset and lease liability, neither of which are recognized for tax purposes.

** Receivable, taxable as collected.

Entries:

Existing balance of ($\$3,861 \times 0.75 = \$2,896$) in tax expense	
Tax expense, ordinary income ($\$20,000 - \$2,896$)	17,104
Future income tax (capital assets)	12,000
Future income tax (pension)	1,459
Future income tax (lease)	2,680
Income tax payable ($3,861 \times 0.25$)	965
Tax expense, extraordinary item	40,000
Future income tax, extraordinary gain	40,000

Source: Adapted from *Solutions Manual*, Assignment 15-28, pages 853-854.

Self-test 6**Solution 6****Requirement 1**

	Tax basis	Carrying value	Temporary difference	Future tax asset (liability)
Inventory	300,000	260,000	40,000	12,000
Vacation pay	0	(100,000)	100,000	30,000
Bond discount	20,000	12,000	8,000	2,400
Capital asset	150,000	400,000	(250,000)	(75,000)

Requirement 2

The inventory and vacation pay liability are current items, and therefore the future tax assets relating to these items will be classified as current: $\$12,000 + \$30,000 = \$42,000$.

The bond discount and the CCA/depreciation difference are non-current items, and thus a net related future tax liability of $\$72,600$ will be classified as non-current.

Requirement 3

The response would not change if the depreciation/CCA difference were to begin to reverse next year. Future income tax classifications are based on the classification of the related balance sheet account (in this case, capital assets, long-term assets), not on the period of reversal.

Source: *Solutions Manual*, Assignment 15-29, page 855.

Self-test 6

Solution 7

- 16-3 Companies prefer to use tax losses as carrybacks prior to carryforwards because they receive a refund immediately. The carryforward benefit is also contingent on earning future taxable income, while prior years' tax paid is definite.
- 16-5 Companies may prefer to recognize the benefit of a loss carryforward in the period of the accounting loss because the resulting credit to tax expense reduces the net accounting loss recorded. It is also good matching of the benefit to the event that triggered it. The benefit will be realized in some future year when the tax loss is offset against taxable income.
- 16-11 "More likely than not" means that the probability is greater than 50%.
- 16-13 Three examples of favourable evidence in assessing the likelihood of tax loss carryforward usage are
1. A strong earnings history, along with evidence that the loss was caused by non-recurring causes
 2. Existing orders or sales backlogs sufficient to create positive taxable income when recognized
 3. Existing temporary differences that can be manipulated to create taxable income in the carryforward period (for example, CCA, which does not need to be charged)
- Another acceptable example is an excess of fair value over the tax basis for company assets.
- 16-17 Income will decrease if a previously recognized loss carryforward is now considered unlikely to be recognized and written off. The resulting charge to earnings is additional tax expense.

Source: *Solutions Manual*, Questions 16-3, 16-5, 16-11, 16-13, and 16-17, pages 858-859.

Self-test 6

Solution 8

Requirement 1

- The current portion of the income tax provision is the tax that would be payable on net income if there was no loss carryforward.
- The future tax portion of the provision is the tax expense that will be paid in a future period, not this year. It is the change in future income tax.
- The impact of the loss carryforward reflects the benefit of having a loss carryforward to eliminate the tax payable on ordinary income. The loss was not recorded in prior years.
- Essentially, no tax is payable this year because of the loss carryforward. There is tax expense solely because of future income tax (\$14,500).

Requirement 2

- A future income tax current asset would be caused by a current liability, such as unearned revenue or warranty liability.
- A future income tax non-current liability would be caused by a non-current asset, such as capital assets.
- Other examples, if logical, are acceptable.

Requirement 3

The loss carryforward could not be recognized in its entirety unless use of the loss were considered to be more likely than not. If the loss is not recorded, then this condition must not have been met.

The remaining unrecognized loss carryforward is \$357,500. The tax benefit of this, at 40%, is \$143,000. If the loss carryforward were recognized, net income and retained earnings would increase by \$143,000, and a future tax asset would be recognized in the amount of \$143,000.

Requirement 4

- The current FIT balance appears to have had no change in the year, since the future income tax portion of the tax expense was all non-current. Therefore, the opening balance was \$3,700.
- The non-current future income tax account increased by \$19,500 this year, giving it an opening balance of \$110,100 (\$129,600 – \$19,500).

Requirement 5

No tax is currently payable. The current portion of tax expense, \$37,500, would be payable

if there was no loss carryforward.

Source: *Solutions Manual*, Assignment 16-1, page 869.