OBJECTIVES

After careful study of this chapter, you will be able to:

1. Understand permanent and temporary differences.
2. Explain the conceptual issues regarding interperiod tax allocation.
3. Record and report deferred tax liabilities.
4. Record and report deferred tax assets.
5. Explain an operating loss carryback and carryforward.
6. Account for an operating loss carryback.
7. Account for an operating loss carryforward.
8. Apply intraperiod tax allocation.
9. Classify deferred tax liabilities and assets.
SYNOPSIS

Overview and Definitions

1. Significant differences normally exist between a company's pretax financial income and taxable income because generally accepted accounting principles are used to measure pretax financial income while the Internal Revenue Code and state tax laws are used to determine taxable income for purposes of paying income taxes. These differences stem from the different objectives of generally accepted accounting principles and of tax laws. The objective of generally accepted accounting principles is to provide information useful to present and potential users in making rational investment, credit, or similar decisions. However, the objectives of the Internal Revenue Code are to raise revenue to operate the government and to assist the government in achieving social or economic goals.

Interperiod Income Tax Allocation: Basic Issues

2. Differences between a corporation's pretax financial income and taxable income are a result of either permanent or temporary differences. The three types of permanent differences are: (a) revenues that are recognized for financial reporting purposes but are never taxable, such as interest received by a corporation on an investment in municipal bonds and proceeds received from life insurance policies on key officers; (b) expenses that are recognized for financial reporting purposes but are never deductible in calculating taxable income, such as premium payments on officers' life insurance and fines related to the violation of a law; and (c) deductions that are allowed for taxable income but are not allowed as expenses under generally accepted accounting principles, such as percentage depletion in excess of cost depletion, and certain dividend exclusions for investments in equity securities.

3. Interperiod tax allocation procedures are not applicable to permanent differences between a corporation's taxable income and pretax financial income. Permanent differences do not have deferred tax consequences, and, therefore, affect either a corporation's reported pretax financial income or its taxable income, but not both.

4. A temporary (timing) difference is a difference in a corporation's pretax financial income and taxable income resulting from reporting revenues and expenses in one period for income tax purposes and in another period for financial reporting purposes. The temporary differences normally originate in one or more years and reverse in later years. Temporary differences in the year of origination may result in either future pretax financial income exceeding future taxable income or future taxable income exceeding future pretax financial income in the year of reversal. Examples of various types of temporary differences in these two situations are presented in items (5) and (6). These temporary differences create the need for interperiod tax allocation.
5. The following selected examples result in temporary differences that generate a deferred tax liability (future taxable amounts) because a corporation's pretax financial income is greater than taxable income in the year in which the temporary difference originates. As a result, its future taxable income will be greater than future pretax financial income when the item reverses in future years.

<table>
<thead>
<tr>
<th>Method Used for Book Purposes</th>
<th>Method Used for Income Taxes</th>
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</thead>
<tbody>
<tr>
<td>Profits on installment sales are recognized at date of sale</td>
<td>Profits on installment sales are recognized when collected</td>
</tr>
<tr>
<td>Percentage-of-completion method used for long-term contracts in progress</td>
<td>Completed-contract method</td>
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<tr>
<td>Equity method of accounting for investments when equity income exceeds dividends declared</td>
<td>Income is recognized when cash dividends are received</td>
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<tr>
<td>Straight-line depreciation</td>
<td>Accelerated depreciation</td>
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<tr>
<td>Longer estimated useful life</td>
<td>Shorter estimated useful life</td>
</tr>
<tr>
<td>Interest and property taxes during construction are capitalized</td>
<td>Interest and property taxes during construction are deducted from taxable income when paid</td>
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</table>

6. A corporation's pretax financial income may be less than its taxable income if the income tax laws require that revenue received in advance of being earned must be included in taxable income when received or if the tax laws disallow the deduction of accrued expense until actually paid. The following will result in temporary differences that generate a deferred tax asset (future deductible amounts) because a corporation's taxable income is greater than pretax financial income in the year in which the temporary difference originates. As a result, future taxable income will be less than future pretax financial income when the item reverses in future years.

<table>
<thead>
<tr>
<th>Method Used for Book Purposes</th>
<th>Method Used for Income Taxes</th>
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<tbody>
<tr>
<td>Prepaid rent, interest, royalties, or other revenue received in advance included in income when earned</td>
<td>Prepaid rent, interest, royalties, or other revenue received in advance included in income when received</td>
</tr>
<tr>
<td>Gains on sales and leasebacks are reported over the life of the lease contract</td>
<td>Gains on sales and leasebacks are taxed at the date of sale</td>
</tr>
<tr>
<td>Warranty expense, bad debt expense, compensation expense for stock option plans, and losses on inventories in a later year are estimated in the current year</td>
<td>Warranty costs, bad debt expense, compensation expense for stock option plans, and losses on inventories in a later year are deducted when paid</td>
</tr>
<tr>
<td>Indirect costs of producing inventory are expensed currently</td>
<td>Indirect costs of producing inventory are capitalized and deducted as part of cost of goods sold</td>
</tr>
<tr>
<td>Loss contingency is recorded when a probable loss is estimated</td>
<td>Loss contingencies are deducted when paid</td>
</tr>
</tbody>
</table>

7. Under GAAP, comprehensive interperiod income tax allocation of temporary differences using the asset/liability method is required. Therefore, a corporation uses interperiod income tax allocation to determine its deferred tax assets and liabilities for all temporary differences, based on the currently enacted income tax rates and laws that will be in existence when the temporary differences result in future taxable amounts or deductible amounts. The corporation adjusts its deferred tax assets and liabilities when changes in the income tax rates are enacted.
Interperiod Income Tax Allocation: Recording and Reporting of Current and Deferred Taxes

8. A corporation must report any deferred tax liability or deferred tax asset on its balance sheet at the end of the current year. The liability (asset) should reflect the future amount of income taxes payable (or refundable) that are a result of the deferred tax consequences of temporary differences recognized in the current or preceding years. At the end of the current year, the amount of deferred tax liability (asset) must be determined. Then the balance in the deferred tax liability (asset) account must be adjusted by recognizing a deferred tax expense (benefit) that is equal to the change in the deferred tax liability (asset) during the year. A valuation allowance may have to be recorded (adjusted) if any tax benefits from a deferred tax asset are not expected to be realized. A corporation's income tax expense (benefit) for the current year equals the amount of income taxes payable (refundable) plus (minus) the net change in the deferred tax liability (asset) during the year plus (minus) the change (if any) in the valuation allowance. Its income taxes payable equals taxable income times the current tax rate.

9. To measure and record the amount of current and deferred income taxes, a corporation must complete the following steps:

(a) Measure the income tax obligation for the year by applying the applicable tax rate to the current taxable income.

(b) Identify the temporary differences and classify each one as taxable or deductible temporary differences.

(c) Measure the year-end deferred tax liability for each taxable temporary difference using the applicable tax rate.

(d) Measure the year-end deferred tax asset for each deductible temporary difference using the applicable tax rate.

(e) Reduce deferred tax assets by a valuation allowance if, based on available evidence, it is more likely than not that some or all of the year-end deferred tax assets will not be realized.

(f) Record the income tax expense (including the deferred tax expense or benefit), income tax obligation, change in deferred tax liabilities and/or deferred tax assets, and change in valuation allowance (if any).

10. When a corporation recognizes a deferred tax asset because of a deductible temporary difference, it will realize the tax benefits only if there is sufficient future taxable income from which to subtract the deductible temporary difference. If there is enough uncertainty about a company's future taxable income, then the company must record a valuation allowance to reduce its deferred tax asset to its realizable amount. A valuation allowance is required if, based on available evidence, it is more likely than not that the deferred tax asset will not be realized.

11. When a company has more than one temporary difference, it must record a deferred tax liability (or asset) for each taxable (deductible) difference.
Operating Loss Carrybacks and Carryforwards

12. The Internal Revenue Code permits a tax break for corporations that experience operating losses. A corporation can carry back operating losses two years in sequential order (beginning with the earliest year) and receive a tax refund for appropriate taxes paid during this period. If the operating loss that is carried back for the two previous years is not all used, the excess can be carried forward sequentially for 20 years to reduce taxable income. A corporation can also choose to just carry the loss forward for 20 years and not carry back an operating loss.

13. Under GAAP, a corporation must recognize the tax benefit of an operating loss carryback in the period of the loss as a current receivable on its balance sheet and as a reduction of the pretax operating loss on its income statement.

14. Under GAAP, a corporation must recognize the tax benefit of an operating loss carryforward in the period of the loss as a deferred tax asset. However, it must reduce the deferred tax asset by a valuation allowance, if based on the available evidence; it is more likely than not that it will not realize some or the entire deferred tax asset. In other words, a corporation handles operating loss carryforwards in the same manner as the deductible temporary differences discussed earlier. It measures a deferred tax asset using the enacted future tax rate, and, if necessary, it deducts a valuation allowance from the deferred tax asset to determine its net realizable value. In the year-end journal entry to record a company's current and deferred taxes, any increase (decrease) in the deferred tax asset and valuation allowance is treated as an adjustment of income tax expense (benefit).

15. When a corporation realizes the tax benefit of an operating loss carryforward in a future year as a reduction in income taxes payable, it eliminates the deferred tax asset and related valuation allowance.

Intraperiod Income Tax Allocation

16. Intraperiod income tax allocation requires that a corporation must apportion its total income tax expense for the period to the appropriate sections of its income statement (and occasionally its retained earnings statement, statement of comprehensive income, or statement of changes in stockholders' equity). A separate line item is shown on the income statement for the amount of income tax expense (based on normal income tax rates) that relates to income from continuing operations. Disclosure of the related income tax expense or tax credit should be made parenthetically for extraordinary items, the income or loss from the operations of a discontinued component, the gain or loss on disposal of a discontinued component, prior-period adjustments (shown on the statement of retained earnings), and any other comprehensive income items. The marginal tax rate is multiplied times each of these items in order to determine the amount of income tax expense or tax credit to apply. A corporation reports these items net of the related income taxes on the appropriate financial statement. Additionally, the corporation discloses any income tax effects of gains and losses included in other comprehensive income. The underlying purpose of intraperiod income tax allocation is to associate the income tax expense or credit with the item that gave rise to the tax effect.

17. A corporation debits the Income Tax Expense account to record taxes on income from continuing operations (and generally any adjustment to deferred income taxes). It debits (or credits) the income tax expense (or credit) that applies to the income statement (and retained earnings statement) items reported on a net of tax basis directly to the related account.
Financial Statement Presentation and Disclosures

18. A corporation reports its income taxes payable as a current liability on its balance sheet. Deferred tax liabilities and assets are reported in two classifications: a net current amount and a net noncurrent amount. To do so, a corporation must separate its deferred tax liabilities and assets into current and noncurrent groups and then combine (net) the amounts in each group. If the net amount is a debit balance, it is recorded as a current (noncurrent) asset. If the net amount is a credit balance, it is recorded as a current (noncurrent) liability.

19. In addition to the income statement disclosure, a corporation usually uses a note to the financial statements to fulfill the disclosure requirements related to income tax expense. The note would (a) disclose the causes of the deferred tax assets and liabilities; (b) disclose the total deferred tax liabilities, total deferred tax assets, and total valuation allowance (and its net change); (c) disclose the amount of income tax expense or benefit related to continuing operations, discontinued operations, extraordinary items, prior period adjustments, gains and losses included in other comprehensive income; (d) identify the significant components of income tax expense related to continuing operations each year, such as current tax expense (benefit), deferred tax expense (benefit), tax credits, benefits of carryforwards, adjustments in deferred tax liability (asset) from changes in tax laws (or rates), and adjustments of valuation allowance; (e) reconcile the differences between income tax expense related to continuing operations under the rules of financial reporting and federal taxation; and (f) identify the amounts and timing of operating loss and tax credit carryforwards.

Miscellaneous Issues

20. If the income tax laws or rates used to calculate a corporation's deferred tax liability (asset) change, the corporation adjusts the deferred income tax liability (asset) for the effect of the change. The adjustment is made directly to the deferred tax liability (asset) as of the beginning of the year in which the change is made. The resulting tax effect is included in the income tax expense related to income from continuing operations. The amount of the adjustment is the difference between the deferred tax liability (asset) balance calculated using the old rate and the balance calculated using the new rate.

21. Under the alternative minimum tax (AMT) rules, a corporation pays the higher of its AMT or its regular income tax liability. Therefore, the AMT may affect the corporation's income tax obligation in a given year. The AMT also may affect the corporation's deferred tax liability. If a corporation pays the AMT, generally it can credit some of or the entire amount paid against future income taxes in years when the regular tax liability exceeds the AMT. The AMT credit may not be carried back but may be carried forward indefinitely.
SELF-EVALUATION EXERCISES

Complete the table below by placing, for each of the nine items, an "X" in one of the first two columns and an "X" in one of the remaining three columns, as appropriate; to indicate whether the originating difference listed will result in:

- **P** - Permanent difference
- **T** - Temporary difference
- **FD** - Deferred tax asset (future deductible amounts)
- **FT** - Deferred tax liability (future taxable amounts)
- **N/A** - Interperiod tax allocation not applicable

The first two questions have been completed.

<table>
<thead>
<tr>
<th>P</th>
<th>T</th>
<th>FD</th>
<th>FT</th>
<th>N/A</th>
<th>Nature of Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>(1) Received “tax free” interest</td>
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<tr>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>(2) Straight-line depreciation used for book purposes and accelerated depreciation used for income tax purposes</td>
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<tr>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>(3) Paid $2,000 premium on officers’ life insurance</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>(4) Received proceeds from life insurance due to death of officer</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>(5) Warranty expense accrued for book purposes and deducted when paid for income tax purposes</td>
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<tr>
<td></td>
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<td></td>
<td>(6) Installment-sale method of recognizing revenue used for tax purposes and accrual used for book purposes</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>(7) Loss contingency is recorded for book purposes when probable loss is estimated and deducted from taxes when paid</td>
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<td>(8) Percentage-of-completion method used to record long-term construction income for book purposes and completed-contract method used for tax</td>
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<tr>
<td></td>
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<td></td>
<td>(9) Prepaid rental income is deferred for book purposes and recognized as income for tax purposes</td>
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</tbody>
</table>
True-False Questions

Determine whether each of the following statements is true or false.

1. All expenses recognized for financial reporting purposes are deductible for income tax purposes.
   
   **Answer: False**
   Expenses that can be recognized for financial accounting purposes reduce financial income. Some of these expenses (such as fines paid or premiums paid for life insurance policies) are not deductible for income tax purposes.

2. No reversals will occur in permanent differences between pretax financial income and taxable income, but temporary differences will normally reverse necessitating interperiod tax allocation.
   
   **Answer: True**
   A permanent difference is just that: permanent. It will not reverse in future periods and therefore does not require interperiod allocation to account for the reversal that is present in temporary differences. Permanent differences, however, do need to be considered when calculating the difference between financial and taxable income in any given year.
3. A corporation may first carry operating losses back two years and then forward 20 years if the taxable income for the past two years is not large enough to offset the amount of currently reported losses.

Answer: True

A corporation may carryback two years operating losses to offset previous tax liabilities. Any remaining operating loss that is not used in the carryback may be carried forward for up to 20 years to offset future taxable income.

4. Permanent differences affect both reported pretax financial income and taxable income.

Answer: False

Permanent differences affect either pretax financial income or taxable income, but not both. It is because of this reason that permanent differences do not have a deferred tax consequence.

5. Interperiod tax allocation is the apportionment of the total income tax expense for a period to the appropriate sections of the income statement and retained earnings statement.

Answer: False

Interperiod tax allocation is the apportionment of a corporation’s income tax obligation as an expense to various accounting periods. Intraperiod tax allocation is the apportionment of the total income tax expense for a period to the appropriate sections of the income statement (and occasionally its retained earnings statement, statement of comprehensive income, or statement of changes in stockholders’ equity).

6. If an expense represents both an expired cost and a tax deduction for the same amount in the same period, a corporation will deduct it from revenue to arrive at both pretax financial income and taxable income.

Answer: True

If an expense is an expired cost that is deducted from revenue for financial accounting purposes and is also an allowable deduction for tax purposes, it is deducted from revenue to determine both pretax financial and taxable income.

7. Pretax financial income is used to determine the amount of taxes payable to the government.

Answer: False

Pretax financial income is the financial accounting income prior to the determination of income tax expense. Taxable income is used to determine the amount of taxes payable to the government.

8. A corporation must calculate and record a deferred tax liability or asset for each temporary difference.

Answer: True

Each temporary difference will reverse over time. These temporary differences result in a difference between financial income and taxable income, which, in turn, results in a difference in taxes paid and tax expense. To account for these differences, a deferred tax asset or liability is created for each temporary difference.

9. A corporation uses a valuation allowance account to adjust both deferred tax asset and deferred tax liability accounts when there is uncertainty about its future taxable income.

Answer: False

A valuation account is used to adjust deferred tax assets, not liabilities, when there is uncertainty about future taxable income.
10. Rent received in advance will normally result in a temporary difference if not earned in the same period as received.

Answer: True
Rent received in advance is generally considered to be taxable when received and is therefore included in taxable income. However, for financial reporting purposes rent received in advance is not included in financial income until it is earned, regardless of when it is received. This difference in treatment results in a temporary difference between financial and taxable income.

11. Additional depreciation taken for tax purposes causes taxable income to be less than pretax financial income and results in the creation of a deferred tax asset.

Answer: False
Additional depreciation for tax purposes causes a lower taxable income than financial income in the year the difference originates. In later years when this temporary difference reverses, financial income will be lower than taxable income. As such, this type of temporary difference results in a deferred tax liability since the company will owe more taxes in future years.

12. In a given year, the consistency principle requires a corporation to use the same tax rate to calculate both the amounts of any deferred tax liability (asset) and the current income tax obligation.

Answer: False
Deferred tax assets and liabilities are determined based on future years. Because the rate may be different in future years when these deferred tax assets and liabilities reverse, we use the tax rates that will be applicable when the reversal occurs. In many instances, these future rates are not known so we use the current rates until the actual future rates have been enacted by the taxing authority.

13. The amount of a corporation's income tax expense for a year includes the taxes on current income and any adjustment to the deferred tax asset and/or liability accounts and any change in the valuation allowance.

Answer: True
Adjustments to deferred tax assets and liabilities and changes to the valuation allowance are offset against income tax expense.
Multiple Choice Questions

Select the one best answer for each of the following questions.

1. Transactions affecting the determination of pretax financial income in one period and the determination of taxable income in another period create the need for:
   (a) operating loss carryforwards.
   (b) operating loss carrybacks.
   (c) interperiod income tax allocations.
   (d) intraperiod income tax allocations.

   Answer: (c) interperiod income tax allocations.

   Interperiod tax allocation is the apportionment of a corporation’s income tax obligation as an expense from one accounting period to another. Answers (a) and (b) are incorrect because operating loss carrybacks and carryforwards do not deal with the determination of differences between pretax financial income and taxable income. Operating loss carrybacks and carryforwards deal with how we handle a loss in taxable income. Answer (d) is incorrect because intraperiod tax allocation is the apportionment of the total income tax expense for a single period to the appropriate sections of the income statement.

2. The amount of income taxes that relates to pretax financial income from continuing operations is reported on the income statement as:
   (a) income taxes payable.
   (b) long-term deferred income taxes (credit).
   (c) current deferred income taxes (credit).
   (d) income tax expense.

   Answer: (d) income tax expense.

   Income tax expense is the amount of income taxes that are reported on the income statement for financial income from continuing operations. Answer (a) is incorrect because income taxes payable are the amount of taxes that we must pay to the government based on the calculation of taxable income. Answers (b) and (c) are incorrect. These choices are not real accounts. They are similar to deferred tax asset and liability accounts, which can be either current or deferred. These accounts (deferred tax assets and deferred liabilities) would be reported on the balance sheet and not the income statement.

3. The sources of differences between pretax financial income and taxable income in the current year are:
   (a) permanent differences and temporary differences;
   (b) permanent differences only;
   (c) temporary differences only;
   (d) operating loss carrybacks and carryforwards.

   Answer: (a) permanent differences and temporary differences;

   In any given year, both permanent and temporary differences result in different pretax financial income and taxable income. Answers (a) and (b) are incorrect since they only include one source of differences; permanent or temporary, but not both. Answer (d) is incorrect because operating loss carrybacks and carryforwards relate to how we handle a loss in taxable income, but not differences in financial and taxable income.
4. Revenue recognized for financial reporting purposes that will never be taxable is:
   (a) a temporary difference.
   (b) a permanent difference.
   (c) either a temporary difference or a permanent difference.
   (d) a good example of tax fraud.

   Answer: (b) a permanent difference.

   Revenue that is recognized for financial income but will never be taxed is a permanent difference.

   Answers (a) and (c) are incorrect because temporary differences between financial income and taxable income will reverse over time and become taxable in future years. Answer (d) is incorrect because there are items that are legally excluded for taxation purposes but would be included in financial income.

5. In 2011, the first year of operations, Rowe Company reported pretax financial income of $15,000 and taxable income of $11,000. The difference was due to a difference in depreciation for financial reporting and income tax purposes. This difference will reverse in the future as taxable income exceeds financial income by $800 in 2012, $2,000 in 2013, and $1,200 in 2014. The tax rate for the current year is 30%, and no change has been enacted for future years. The amount of income tax expense and deferred tax liability at the end of 2011 is:

<table>
<thead>
<tr>
<th>Income Tax Expense</th>
<th>Deferred Tax Liability</th>
</tr>
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<tbody>
<tr>
<td>$4,500</td>
<td>$1,200</td>
</tr>
<tr>
<td>$3,300</td>
<td>$4,500</td>
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<tr>
<td>$3,300</td>
<td>$1,200</td>
</tr>
<tr>
<td>$4,500</td>
<td>$3,300</td>
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</tbody>
</table>

   Answer: (a) Income Tax Expense $4,500; Deferred Tax Liability $1,200

   There are three numbers that appear in this question and each number is correct. However, answer (a) has the correct amounts and is correctly labeled. Income taxes payable ($3,300) is based on taxable income of $11,000 times the correct tax rate of 30% ($11,000 × 30% = $3,300). The amount of deferred tax liability is calculated as the $4,000 difference between pretax financial income and taxable income ($15,000 − $11,000) times the current tax rate (30%) to get a deferred tax liability of $1,200 ($4,000 × 30%).

   Note that all amounts are calculated above. Answer (b) is incorrect because the income tax expense amount is actually the income tax payable amount and the amount listed in deferred tax liability is the income tax expense amount. Answer (c) is incorrect because the income tax payable amount is listed as the income tax expense amount, even though the correct deferred tax liability amount is listed. Answer (d) is incorrect because the income tax payable amount is listed as the income tax expense amount and the income tax expense amount is listed as the deferred tax liability amount.
6. At the end of 2011, its first year of operation, the Whitner Corporation reported $45,000 taxable income and $38,000 pretax financial income as a result of a single temporary difference. Because of uncertain economic times, the company believes that only 75% of the deductible temporary difference will be realized. The tax rate for 2011 is 30%, and no change has been enacted for future years. On the 2011 year-end balance sheet, the deferred tax asset will be reported at a net balance of:

(a) $5,250.
(b) $7,000.
(c) $2,100.
(d) $1,575.

Answer: (d) $1,575.

The difference between pretax financial income ($38,000) and taxable income ($45,000) is $7,000. Because this is a temporary difference and the taxable income is larger than the financial income, the difference creates a deferred tax asset. To determine the amount, you multiply the tax rate by the temporary difference of $7,000 to arrive at a deferred tax asset of $2,100 (30% × $7,000). However, because of uncertain economic times, the company does not think they will realize the entire deferred tax asset. They estimate they will realize 25% of the asset and forgo 25% of the asset. Therefore, 25% of the deferred tax asset will be set aside as a valuation allowance. (25% × $2,100 = $525). The valuation allowance ($525) is deducted from the deferred tax asset ($2,100) to arrive at a net deferred asset amount of $1,575 ($2,100 − $525 = $1,575).

Answer (a) is incorrect because it represents 75% of the difference, not of the deferred tax asset. Answer (b) is incorrect because it is the total amount of the temporary difference and not the net deferred tax asset position. Answer (c) is incorrect because this is the amount of the deferred tax asset and does not take into consideration the likelihood that not all of the asset will be realized.

7. Using the information given in problem #6 above, the amount of income tax expense reported by Whitner Corporation on its 2011 income statement would be:

(a) $7,000.
(b) $11,925.
(c) $11,400.
(d) $13,500.

Answer: (b) $11,925.

Income tax expense is computed as the tax payable plus/minus any changes in deferred tax accounts. The taxes payable are $45,000 x 30% ($13,500); the deferred tax asset is $7,000 x 30% ($2,100) and the reduction of the deferred tax asset due to uncertainty is $525 ($2,100 x 25%). Therefore, the final tax expense is $13,500 − $2,100 + $525 = $925.

Answer (a) is incorrect because $7,000 is the temporary difference between pretax financial income and taxable income. This is not the income tax expense amount. Answer (c) is incorrect because $11,400 does not take into consideration the valuation allowance as explained in the correct answer discussion above. Answer (d) is incorrect because this is the amount of income taxes payable for 2011 (taxable income of $45,000 times the tax rate of 30% equals $13,500).
8. Which of the following is not an example of a permanent difference between pretax financial income and taxable income?
   (a) Interest earned on municipal bonds is included in pretax financial income
   (b) Straight-line depreciation is expensed for financial accounting purposes but accelerated depreciation is used for income tax purposes
   (c) Fines related to the violation of law
   (d) All of these are permanent differences between pretax financial income and taxable income.

   Answer: (b) straight-line depreciation is expensed for financial accounting purposes but accelerated depreciation is used for income tax purposes

   Because the amounts will reverse over time, differences between methods of depreciation are not a permanent difference between pretax financial income and taxable income. For both tax and financial accounting, a company may only depreciate the depreciable base of an asset (cost - salvage value). Therefore, over time the amount expensed under both depreciation methods will be the same and the difference will reverse itself.

   Answer (a) is incorrect because interest on municipal bonds is considered income for financial purposes, but is permanently excluded from taxable income; therefore, this is a permanent difference. Answer (c) is incorrect because while fines can be deducted as an expense to determine pretax financial income, they are never allowed as a deduction to arrive at taxable income; therefore, they are a permanent difference. Answer (d) is incorrect because answer (b) is not a permanent difference between pretax financial income and taxable income.

9. Which of the following would result in a future taxable amount at the time of an originating temporary difference?
   (a) Warranty expense is estimated for pretax financial income.
   (b) Prepaid rental income will be included in pretax financial income when earned in a future period.
   (c) Accelerated depreciation is deducted for income tax purposes and the straight-line method is used for pretax financial income.
   (d) None of these items will result in a future taxable amount at the time of the originating temporary difference.

   Answer: (c) accelerated depreciation is deducted for income tax purposes and the straight-line method is used for pretax financial income.

   At the time of origination, the use of accelerated depreciation for tax purposes and straight-line depreciation for financial purposes results in larger depreciation expense for taxable income. Therefore, pretax financial income will be higher than taxable income. When pretax financial income exceeds taxable income, we will have a lower income tax payable amount than our income tax expense amount. Since this is a temporary difference, at some point in the future our taxable income will be larger than our pretax financial income, and we will owe more taxes in the future.

   Answer (a) is incorrect because estimated warranty expense will reduce pretax financial income and not taxable income, therefore, we will be paying less taxes in the future. Answer (b) is incorrect because prepaid rental income results in a lower pretax financial income in the originating period because the prepaid income has not been earned for financial reporting purposes. Because pretax financial income is lower than taxable income, we will be paying more in taxes today and less in the future on this difference. Answer (d) is incorrect because answer (c) will result in a future taxable amount at the time of the originating temporary difference.
10. Beware Company reported taxable income in 2008 of $40,000; in 2009 of $55,000; and in 2010 of $42,000. In 2011, the company reported a pretax operating loss for both financial reporting and income tax purposes of $90,000. Assuming that the income tax rates for the previous three years and the current year were 25% in 2008, 25% in 2009, 30% in 2010, and 30% in 2011, the income tax benefit from the operating loss carryback for 2011 would be:
(a) $22,500.
(b) $90,000.
(c) $27,000.
(d) $24,250.

Answer: (d) $24,250.
The income tax benefit from the operating loss carryback for 2011 would be the amount that Beware is able to receive as a tax refund for taxes paid in the previous two years (2009 and 2010). The carryback of the ($90,000) operating loss is first applied to the $55,000 of taxable income in 2009. This reduces the 2009 taxable income to zero and results in an immediate refund of the $13,750 paid in taxes ($55,000 × 25% 2009 tax rate). Because the loss was ($90,000) and we have only used $55,000, there is ($35,000) in loss remaining to apply against the $42,000 of taxable income in 2008. The reduction of taxable income in 2008 by $35,000 results in an immediate refund of the $10,500 paid in taxes ($35,000 × 30% 2008 tax rate). Therefore, the total income tax benefit from the operating loss in 2011 is $24,250 ($13,750 from 2009 and $10,500 from 2008).
Answer (a) is incorrect because it is the income tax benefit that would be generated from a tax rate of 25% for the entire ($90,000) loss. Because the loss carryback can only be carried back two years and the remainder brought forward to 2012 (with a 30% tax rate), a constant rate of 25% is not used. Answer (b) is incorrect because the $90,000 is the amount of the loss, not the amount of the tax benefit that Beware will receive from the loss. Answer (c) is incorrect because this is the amount if the benefit were applied using a 30% tax rate. Because the 2008 tax rate was 25% and the 2009 tax rate was 30%, we must use the tax rate that was in effect for each particular year.

11. When using intraperiod income tax allocation, a corporation calculates the amount of tax to be applied to each item of "noncontinuing income":
(a) by multiplying the marginal tax rate times each item.
(b) by multiplying the effective tax rate times each item.
(c) as the difference between the amount of tax on pretax financial income and taxable income.

Answer: (a) by multiplying the marginal tax rate times each item.
Because the "noncontinuing" items are "incremental," the corporation determines the amount of income tax or tax credit for each item by applying the marginal rate to each item. Answer (b) is incorrect because the effective tax rate is not applied to noncontinuing items. Answer (c) is incorrect because this difference is the amount due to permanent or temporary differences and is used to calculate the income tax expense and income taxes payable, as well as deferred tax assets and liabilities. These items are all a part of interperiod tax allocation and not intraperiod tax allocation.
**Problem-Solving Strategies**

The problems that are generated from deferred taxes arise from the fact that for many items there are differences in the way expenses and revenue are treated for financial and tax purposes. These differences can either be temporary in that they will reverse themselves at some point in the future, or they are permanent and will never reverse themselves.

**Permanent Differences**

A permanent difference does not require the establishment of a deferred tax asset or liability because there will be no future tax consequences of the income or expense. However, it does require the adjustment of income from a pretax financial standpoint to arrive at taxable income.

As an example, assume that Montondon, Inc. has pretax financial income of $100,000 in 2011. Included in that income is $7,500 of interest from City of San Marcos, Texas, municipal bonds. The interest is income and should be reported as financial income; however, the interest is excluded from federal income taxation. Therefore, in order to arrive at the appropriate taxable income figure we must subtract the municipal bond interest from the pretax financial income. This would give Montondon financial income of $100,000 in 2011 and taxable income of $92,500 in 2011 ($100,000 – $7,500).

**Deferred Tax Liability**

A deferred tax liability is a liability that will result in the future payment of taxes based on differences today between the financial accounting and tax accounting for an item. The taxes will be paid, and therefore the liability eliminated, when the temporary difference results in taxable amounts in future years.

**Strategy:** A deferred tax liability will result when the pretax financial income is greater than the taxable income in the period in which the temporary difference originates.

To illustrate the steps for a deferred tax liability, assume that the Ryan Company, at the end of its first year of operations, reported pretax financial income of $10,000 and taxable income of $9,300 because of one temporary difference. The income tax rate is 30% for the current year, but Congress has enacted a 40% rate for future years.

1. **Step 1:** Measure the income tax obligation for the year by applying the applicable tax rate to the current taxable income.

   The income tax obligation for the year is $2,790 ($9,300 × 0.30).

2. **Step 2:** Identify the temporary differences and classify as a taxable or deductible temporary difference.

   There is one taxable temporary difference because future taxable income will be higher than pretax financial income.

3. **Step 3:** Measure the year-end deferred tax liability for each taxable temporary difference using the applicable tax rate.

   The year-end deferred tax liability is $280 [($10,000 – $9,300) × 0.40].

---

Chapter 19  Accounting for Income Taxes
Strategy: Note that we used the future tax rate of 40% to measure the deferred tax liability. This is because the rate has been officially enacted and it is the rate that we will be required to pay when we finally pay the taxes arising from this difference.

Step 4: Measure the year-end deferred tax asset for each deductible temporary difference using the applicable tax rate.

There is no deferred tax asset.

Step 5: Reduce deferred tax assets by a valuation allowance if, based on available evidence, it is more likely than not that some or all of the year-end deferred tax assets will not be realized.

There is no need for a valuation allowance because there is no deferred tax asset.

Step 6: Record the income tax expense (including the deferred tax expense or benefit), income tax obligation, change in deferred tax liabilities and/or deferred tax assets, and change in valuation allowance (if any).

The journal entry to record the income tax expense, income tax obligation, and change in deferred tax liability (because this is the first year, the ending deferred tax liability from Step 3 is also the change) is as follows:

Income Tax Expense ($280 + $2,790) 3,070
   Income Taxes Payable 2,790
   Deferred Tax Liability 280

Deferred Tax Asset

A deferred tax asset is an asset that will result in the future reduction of taxable income and therefore reduce taxes paid based on differences today between the financial accounting and tax accounting of an item. As the reduction in future taxable income occurs, the asset will be eliminated.

Strategy: A deferred tax asset will result when the pretax financial income is less than the taxable income in the period in which the temporary difference originates.

To illustrate the steps for a deferred tax asset, assume that at the end of the first year of operations the Green Company reported pretax financial income of $15,000 and taxable income of $16,000 because of one temporary difference. The income tax rate is 40% for the current year, but Congress has enacted a 35% rate for future years. The company expects to be profitable in future years, so that it expects to realize any tax benefits.

Step 1: Measure the income tax obligation for the year by applying the applicable tax rate to the current taxable income.

The income tax obligation for the year is $6,400 ($16,000 × 0.40).
Step 2: Identify the temporary differences and classify as a taxable or deductible temporary difference.

There is one deductible temporary difference because future taxable income will be lower than pretax financial income.

Step 3: Measure the year-end deferred tax liability for each taxable temporary difference using the applicable tax rate.

There is no deferred tax liability.

Step 4: Measure the year-end deferred tax asset for each deductible temporary difference using the applicable tax rate.

The year-end deferred tax asset is $350 \([($15,000 - $16,000) \times 0.35]\).

Strategy: Note that we used the future tax rate of 35% to measure the deferred tax asset. This is because the rate has been officially enacted and it is the rate at which we will receive the benefits of our reduced future taxable income arising from this difference.

Step 5: Reduce deferred tax assets by a valuation allowance if, based on available evidence, it is more likely than not that some or all of the year-end deferred tax assets will not be realized.

There is no valuation allowance needed because the company expects to realize the tax benefits of the deferred tax asset.

Step 6: Record the income tax expense (including the deferred tax expense or benefit), income tax obligation, change in deferred tax liabilities and/or deferred tax assets, and change in valuation allowance (if any).

The journal entry to record the income tax expense, income tax obligation, and change in deferred tax asset is as follows:

\[
\begin{align*}
\text{Income Tax Expense ($6,400 - $350)} & \quad 6,050 \\
\text{Deferred Tax Asset} & \quad 350 \\
\text{Income Taxes Payable} & \quad 6,400
\end{align*}
\]

Valuation Accounts

If a corporation might not be in a position to fully utilize a deferred tax asset due to reduced taxable income or actual losses in the future, a valuation account is required. A valuation account reduces the deferred tax asset to the amount that is expected to be realized. When a valuation account is recorded, the offsetting entry is to income tax expense. A valuation allowance is deducted from the deferred tax asset on the balance sheet. If in the example above the company was not certain it would realize the tax benefits from the deferred tax asset, it would make the following journal entry (in addition to the one in step 6):

\[
\begin{align*}
\text{Income Tax Expense} & \quad 350 \\
\text{Allowance to reduce deferred tax asset} & \quad 350
\end{align*}
\]
If a company begins a year with a deferred tax liability or a deferred tax asset, the entry to record the deferred tax expense (benefit) at year-end is an adjusting entry.

For example, assume that at the beginning of 2000, a company has a $480 credit balance in its Deferred Tax Liability account, and it determines that the amount of deferred tax liability at the year-end should be $1,800. The journal entry to recognize the deferred tax expense for the year and to bring the balance of the liability account to $1,800 would include a credit to the Deferred Tax Liability account of $1,320 ($1,800 – $480).

**Presentation in Financial Statements**

A corporation must present its deferred tax liabilities and deferred tax assets in two classifications: (1) a net current amount, and (2) a net noncurrent amount. These classifications are made based on the related asset or liability that gave rise to the deferred tax position. For instance, a deferred tax asset that is generated based on estimated warranty liability would be classified as a current amount if the warranty liability was considered to be a current liability.

To adequately present the deferred tax positions, corporations must:

1. separate their deferred tax liabilities into current and noncurrent groups,
2. separate their deferred tax assets into current and noncurrent groups,
3. combine (or net) the amounts in the current groups, and
4. combine (or net) the amounts in the noncurrent groups.

If the current group has a net liability position, then the corporation would report that as a current deferred tax liability on the balance sheet.

**Net Operating Losses (NOL)**

When a company experiences an operating loss, the tax laws allow that company to either carry the loss back and then forward, or just carry the loss forward. If the corporation chooses to carry the loss back, they are required to first carry the loss back to the year before last year and apply that loss to any taxable income in that year. If the loss is larger than the taxable income in that year, the company may roll the loss forward to the next year with taxable income. This procedure is repeated until there is no more operating loss left to allocate or 20 years forward from the date of the operating loss, whichever comes first.

As mentioned before, a corporation may choose to not carry any of the loss back and just carry the loss forward, again until there is no more loss to offset future taxable income or 20 years, whichever comes first.

When a corporation either carries a loss back or forward, it uses the tax rate in existence at each of the prior balance sheet dates to calculate the income tax refund.
For example, a pretax operating loss in 2011 of $70,000 would be offset first against any pretax financial and taxable income in 2010, and then in 2009 as follows:

```
<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>$32,000</td>
<td>$40,000</td>
<td>$72,000</td>
</tr>
<tr>
<td>Carryback</td>
<td>$32,000</td>
<td>$38,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>20%</td>
<td>30%</td>
<td>N/A</td>
</tr>
<tr>
<td>Tax Refund</td>
<td>$6,400</td>
<td>$11,400</td>
<td>$17,800</td>
</tr>
</tbody>
</table>
```

**Strategy:** Note that although the total previous pretax income was $72,000 ($32,000 + $40,000), the corporation is only entitled to a refund of taxes paid on $70,000 of pretax income because this is the amount of the pretax operating loss.

The entry at the end of 2011 to record the operating loss carryback credit would be:

- Income Tax Refund Receivable 17,800
- Income tax benefit from NOL carryback 17,800

To illustrate an operating loss carryforward, assume that the Brandle Company has a pretax operating loss of $35,000 in 2011 for both financial reporting and income tax purposes. Because 2011 is its first year of operations, the operating loss must be carried forward. The income tax rate is 30% for the current and future years. Based on this information, Brandle records a deferred tax asset of $10,500 ($35,000 × 0.30) at the end of 2011 as follows:

- Deferred tax asset 10,500
- Income tax benefit from NOL carryforward 10,500

If the company had insufficient evidence of future taxable income, and it is more likely than not to be able to realize the deferred tax asset, it must also record a valuation allowance as follows:

- Income tax benefit from NOL carryforward 10,500
- Allowance to reduce deferred tax asset 10,500

**NOL Presentation in Financial Statements**

The presentation of the effects of net operating losses on the income statement is fairly straightforward. When the net operating loss originates, the benefit of that NOL is deducted from the pretax net operating loss to arrive at a net loss position.

For example, if in 2011 Eikner Inc. experienced a net operating loss of $50,000 and will use this to receive an immediate refund of $15,000 paid in taxes in 2009 when the company had a 30% tax rate, the lower portion of the 2011 income statement would be presented as:

- Pretax operating loss $(50,000)
- Less: Income tax benefit from NOL carryback 15,000
- Net Loss $(35,000)
Intraperiod Allocation

Intraperiod income tax allocation is the allocation of the corporation’s total income tax for the period to the various items of the income statement. In some circumstances, there will also be an allocation to the statement of retained earnings, comprehensive income statement, or changes in stockholders’ equity. This is done so that the income taxes associated with each component are matched to the income (or loss) from that component.

The income tax expense for income from continuing operations is calculated using the normal rates applied to income. For items other than income from continuing operations, the marginal rates are used. This is because these items are in effect incremental; they should use the tax rate on this incremental income or loss.

As an example, let’s assume that Turner Corporation has the following items of pretax financial information for 2011:

<table>
<thead>
<tr>
<th>Component (Pretax)</th>
<th>Pretax amount</th>
<th>Tax rate</th>
<th>Income tax payable (credit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from continuing ops</td>
<td>$325,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss on disposal of discontinued operation</td>
<td>(45,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from operation of discontinued operation</td>
<td>40,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraordinary gain on warehouse fire</td>
<td>12,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount subject to taxation</td>
<td>$227,500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Turner is subject to a 15% tax on the first $50,000, 20% on the next $50,000, and 25% on income above $100,000.

We start by calculating the tax (or tax benefit) of each individual item:

<table>
<thead>
<tr>
<th>Component (Pretax)</th>
<th>Pretax amount</th>
<th>Tax rate</th>
<th>Income tax payable (credit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from continuing ops</td>
<td>$50,000</td>
<td>15%</td>
<td>$7,500</td>
</tr>
<tr>
<td>Loss on disposal of discontinued operation</td>
<td>(45,000)</td>
<td>25%</td>
<td>(11,250)</td>
</tr>
<tr>
<td>Income from operation of discontinued operation</td>
<td>40,000</td>
<td>25%</td>
<td>10,000</td>
</tr>
<tr>
<td>Extraordinary gain on warehouse fire</td>
<td>12,500</td>
<td>25%</td>
<td>3,125</td>
</tr>
<tr>
<td>Total income tax payable</td>
<td>$75,625</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the above calculations, we prepare the following journal entry:

<table>
<thead>
<tr>
<th>Entry</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax expense</td>
<td>73,750</td>
</tr>
<tr>
<td>Income from operations of discontinued segment</td>
<td>10,000</td>
</tr>
<tr>
<td>Extraordinary gain from warehouse fire</td>
<td>3,125</td>
</tr>
<tr>
<td>Loss on disposal of discontinued segment</td>
<td>11,250</td>
</tr>
<tr>
<td>Income taxes payable</td>
<td>75,625</td>
</tr>
</tbody>
</table>

**Strategy:** The income tax expense in the above entry is associated with just the income from continuing operations. The tax effects of the other items are debited and credited directly to those items because they will be shown on the income statement net of tax effects.
Test Your Knowledge

1. The Bradley Company acquired an asset on January 1, 2011, its first year of operation. The asset cost $40,000 and has no residual value at the end of its eight-year economic life. The company uses the straight-line depreciation method for financial reporting purposes and the MACRS method (five-year life) for income tax purposes. The appropriate MACRS percentages are 20%, 32%, 19.2%, 11.5%, 11.5%, and 5.8%. Bradley reported taxable income of $30,000 at the end of 2011. Its current tax rate is 30% and no change has been enacted for future years.

(a) Complete the following schedule that shows the amount of annual depreciation for income tax and financial reporting purposes, the annual depreciation temporary difference and the accumulated temporary difference. (2011 has been completed for you.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Income Tax Depreciation</th>
<th>Annual Financial Depreciation</th>
<th>Annual Depreciation Temporary Difference</th>
<th>Accumulated Temporary Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$8,000</td>
<td>$5,000</td>
<td>$3,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>2012</td>
<td></td>
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<td>2017</td>
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</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Complete the following schedule that computes the ending deferred tax liability and the change in deferred tax liability. (2011 has been completed for you.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Accumulated Temporary Difference</th>
<th>Income Tax Rate</th>
<th>Ending Deferred Tax Liability</th>
<th>Beginning Deferred Tax Liability</th>
<th>Change in Deferred Tax Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$3,000</td>
<td>30%</td>
<td>$900</td>
<td>$0</td>
<td>$900</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
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<td>2016</td>
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<tr>
<td>2017</td>
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<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
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</tr>
</tbody>
</table>
2. At the end of 2011, Keene Company reported a pretax operating loss of $46,000 for both financial reporting and income tax purposes. In each of the years since Keene began business in 2007, the company showed a profit and reported and paid taxes on the following pretax taxable income: $6,000 in 2007, $9,500 in 2008, $15,000 in 2009, and $19,000 in 2010. Keene does not have evidence that it will be profitable in the future. The tax rate was 20% in 2007, 25% in 2008 and 2009, and 30% in 2010 and 2011, and no change has been enacted for future years.

(a) Prepare the income tax journal entries of the Keene Company at the end of 2011.
(b) Prepare the lower portion of Keene's 2011 income statement.

(c) How should the operating loss carryforward be disclosed in the 2011 financial statements?

(d) Assuming that Keene Company reports pretax income of $14,000 in 2012, prepare the income tax journal entry for the company at the end of 2012. Assume a 30% income tax rate.

(e) Prepare the lower portion of Keene's 2012 income statement where the income tax expense would be reported.
3. The Kentucky Company reports the following information for the year ending December 31, 2011:

<table>
<thead>
<tr>
<th>Income Tax Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretax income from continuing operations</td>
<td>$200,000</td>
</tr>
<tr>
<td>Pretax extraordinary loss on sale of investment</td>
<td>(40,000)</td>
</tr>
<tr>
<td>Pretax income from operations of discontinued Segment A</td>
<td>30,000</td>
</tr>
<tr>
<td>Pretax loss on disposal of Segment A</td>
<td>(20,000)</td>
</tr>
<tr>
<td>Total</td>
<td>$180,000</td>
</tr>
</tbody>
</table>

Required: Prepare the lower section of the Kentucky Company's income statement beginning with pretax income from continuing operations.

4. Rutledge Company began operations in 2011. Pretax financial income is $300,000 and the tax rate is 40%. Additional information is:

- Straight-line depreciation is used for financial reporting purposes and accelerated depreciation is used for tax purposes. This year the straight-line depreciation was $55,000, and accelerated depreciation was $80,000.
- The company estimates warranty expense for the product it sells. Estimated warranty expense in 2011 was $25,000. Actual warranty cost for 2011 was $17,000.
- The company received income from City of Austin bonds in the amount of $12,000 in 2011.

Required: Prepare the 2011 journal entry to record income tax expense.
**Answers to Test Your Knowledge**

1. (a)

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Income Tax</th>
<th>Depreciation</th>
<th>Financial Depreciation</th>
<th>Annual Depreciation Temporary Difference</th>
<th>Accumulated Temporary Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$8,000</td>
<td>5,000</td>
<td>$5,000</td>
<td>$3,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>2012</td>
<td>12,800</td>
<td>5,000</td>
<td>7,800</td>
<td>10,800</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>7,680</td>
<td>5,000</td>
<td>2,680</td>
<td>13,480</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>4,600</td>
<td>5,000</td>
<td>(400)</td>
<td>13,080</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4,600</td>
<td>5,000</td>
<td>(400)</td>
<td>12,680</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2,320</td>
<td>5,000</td>
<td>(2,680)</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>5,000</td>
<td>5,000</td>
<td>(5,000)</td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>5,000</td>
<td>(5,000)</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

(b)

<table>
<thead>
<tr>
<th>Year</th>
<th>Accumulated Temporary Difference</th>
<th>Income Tax Rate</th>
<th>Ending Deferred Tax Liability</th>
<th>Beginning Deferred Tax Liability</th>
<th>Change in Deferred Tax Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$3,000</td>
<td>30%</td>
<td>$900</td>
<td>$0</td>
<td>$900</td>
</tr>
<tr>
<td>2012</td>
<td>10,800</td>
<td>30%</td>
<td>3,240</td>
<td>$900</td>
<td>2,340</td>
</tr>
<tr>
<td>2013</td>
<td>13,480</td>
<td>30%</td>
<td>4,044</td>
<td>3,240</td>
<td>804</td>
</tr>
<tr>
<td>2014</td>
<td>13,080</td>
<td>30%</td>
<td>3,924</td>
<td>4,044</td>
<td>(120)</td>
</tr>
<tr>
<td>2015</td>
<td>12,680</td>
<td>30%</td>
<td>3,804</td>
<td>3,924</td>
<td>(120)</td>
</tr>
<tr>
<td>2016</td>
<td>10,000</td>
<td>30%</td>
<td>3,000</td>
<td>3,804</td>
<td>(804)</td>
</tr>
<tr>
<td>2017</td>
<td>5,000</td>
<td>30%</td>
<td>1,500</td>
<td>3,000</td>
<td>(1,500)</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
<td>30%</td>
<td>0</td>
<td>1,500</td>
<td>(1,500)</td>
</tr>
</tbody>
</table>

(c) Income Tax Expense ($9,000 + $900) 9,900
Income Taxes Payable ($30,000 × 0.30) 9,000
Deferred Tax Liability 900

Chapter 19 Accounting for Income Taxes
2. **(a)** Income Tax Refund Receivable 9,450
   Operating Loss Carryback 9,450
   To record carryback of operating loss to 2009 and 2010.

   Deferred Tax Asset 3,600
   Income Tax Benefit From NOL Carryforward 3,600
   To record carryforward of 2011 operating loss.

   Income Tax Benefit From NOL Carryforward 3,600
   Allowance to Reduce Deferred Tax Asset 3,600
   To record valuation allowance due to insufficient positive evidence of future taxable income.

<table>
<thead>
<tr>
<th>Year</th>
<th>Offset by Carryback</th>
<th>Tax Rate</th>
<th>Tax Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$15,000</td>
<td>0.25</td>
<td>$3,750</td>
</tr>
<tr>
<td>2010</td>
<td>19,000</td>
<td>0.30</td>
<td>5,700</td>
</tr>
<tr>
<td></td>
<td>$34,000</td>
<td></td>
<td>$9,450</td>
</tr>
</tbody>
</table>

Deferred tax asset = ($46,000 − $34,000) × 0.30 = $3,600

**(b)** Pretax operating loss $(46,000)
Less: Income tax benefit from operating loss carryback 9,450
Net loss $(36,550)

**(c)** The operating loss carryforward should be disclosed in a note to the financial statements.

**(d)** Allowance to Reduce Deferred Tax Asset 3,600
Income Tax Expense 600
Income Taxes Payable [($14,000 − $12,000) × 0.30] 600
Deferred Tax Asset ($12,000 × 0.30) 3,600

**(e)** Pretax operating income $14,000
Less: Income tax expense (600)
Net income $13,400
3. **KENTUCKY COMPANY**  
Partial Income Statement  
For the Year Ending December 31, 2011

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretax income from continuing operations</td>
<td>$200,000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>$(40,000)</td>
</tr>
<tr>
<td>Income from continuing operations</td>
<td>$160,000</td>
</tr>
<tr>
<td>Results of discontinued operations:</td>
<td></td>
</tr>
<tr>
<td>Income from operations of discontinued segment (net of $7,500 income taxes)</td>
<td>$22,500</td>
</tr>
<tr>
<td>Loss on disposal of discontinued segment (net of $5,000 income tax benefit)</td>
<td>$(15,000)</td>
</tr>
<tr>
<td>Income before extraordinary loss</td>
<td>$167,500</td>
</tr>
<tr>
<td>Extraordinary loss on sale of investment (net of $10,000 income tax benefit)</td>
<td>$(30,000)</td>
</tr>
<tr>
<td>Net income</td>
<td>$137,500</td>
</tr>
</tbody>
</table>

4. 

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretax income</td>
<td>$300,000</td>
</tr>
<tr>
<td>Temporary difference Depreciation Expense</td>
<td>$(25,000)</td>
</tr>
<tr>
<td>Temporary difference Warranty Expense</td>
<td>8,000</td>
</tr>
<tr>
<td>Permanent difference Municipal bond interest</td>
<td>$(12,000)</td>
</tr>
<tr>
<td>Taxable income</td>
<td>$271,000</td>
</tr>
<tr>
<td>Tax rate</td>
<td>40%</td>
</tr>
<tr>
<td>Income taxes payable</td>
<td>$108,400</td>
</tr>
</tbody>
</table>

Income tax expense: 115,200  
Deferred tax asset: 3,200  
Deferred tax liability: 10,000  
Income taxes payable: 108,400  
Deferred tax asset: Difference in warranty expense financial and tax $8,000 × 40% = $3,200  
Deferred tax liability: Difference in depreciation expense financial and tax $25,000 × 40% = $10,000  
Income tax expense is $108,400 + $10,000 – $3,200 = $115,200