Solution Outline for Problem 9.1

1. Liabilities are obligations and estimates of obligations to people outside the enterprise, whereas equity is the residual ownership interest in the enterprise after considering the obligations to the liability holders, who have the first claim on the resources (assets). Equity is what would be left after all the bills were paid, assuming that the assets were disposed of at book value and the liabilities were paid off at book value. Owners can be creditors too, for example, for dividends or management fees, but such obligations will have been deducted from equity (as dividends or expenses) and so, to the extent owners are also creditors, they have less equity.

2. Liabilities include more than just debts. Debts are legally enforceable obligations, based on existing agreements regarding purchases, bank borrowings, and other borrowings. Liabilities also include estimates of future cash expenditures stemming from present activities, especially from present expense incurrence. Such estimates are not yet legal debts, but they are included as part of the expense recognition process in accrual accounting. They include future income tax, warranty liability, and short-term accruals for things like interest, the contractual payment of which is not yet due, or the use of utilities.

3. Examples of accruals that require difficult estimates:
   Short-term: (1) estimated income tax payable—the actual income tax payable is often not known until months or years have passed and may depend on the resolution of ambiguities in the tax law and even an audit by the tax authorities; (2) deferred revenue on the collection of container deposits by drink manufacturers—it is difficult to know how many containers will be returned for refund because many are lost or broken.
   Long-term: (1) estimated pension liability—the actual payment, many years in the future, depends on employees’ income levels, their health, future interest rates, and whether they stay employed long enough to qualify for various benefits; (2) estimated warranty liability—this depends on the quality of products sold, changes in laws giving consumers various rights, customers’ satisfaction, media coverage, and many other uncertainties.

4. The objective of accrual accounting is to augment accounting’s transactional base. The augmentation process often involves making estimates of liabilities that aren’t completely reliable; however, the information is still relevant if it presents a better economic reality of the organization. Estimates of liabilities like warranties and pensions are more likely to be recorded than estimates of assets due to the concept of conservatism—taking anticipated losses into account before the transaction happens but not taking anticipated gains into account until the transaction happens.

Solution Outline for Problem 9.2

1. Revenue matching. It is possible to estimate the future costs related to warranties. There is a future obligation that is based on a past contract—the sales agreement.

2. Again, matching - the cost of the pension is earned now. The future cost can be estimated. The estimate of the future long-term obligation is based on actuarial assumptions and is usual contingent upon a set period of employment.

3. Some companies do accrue some repairs and maintenance, and we do accrue future income tax. However, for accrual, we need more than expected cash flow. The accrual has to depend on decisions, contracts, and obligations that already exist now. Other items like executive bonuses are dependent on future decisions.
Solution Outline for Problem 9.3

The commentator's argument is probably based on the premise that current selling prices of goods and services may be kept at an unjustifiably low level because all expenses and costs of production (e.g. present value of pensions to be paid in the future to today's employees) have not been accrued and matched with the current time period. Therefore future generations will have to pay for these outlays as they come due by paying more in the future for goods and services to make up for companies' present failure to put money aside for such future payments. If standard-setters forced companies to account for such pension expenses and liabilities now, the argument goes, this problem would be prevented or at least reduced.

If present incomes are improperly high because such expenses and costs have not been deducted, management of enterprises may also be inefficient or wasteful, believing that results are better than they "really are". Therefore resources may be being wasted which could have been kept for future generations. This may be particularly true for governments, which may be overspending in the present and weakening their ability to act in the future.

Income tax may mitigate these effects because if higher incomes are being recorded at present, governments will collect higher taxes, which may be used to reduce the size of public debt to be repaid in the future, to implement environmental conservation measures, or otherwise benefit future generations.

Solution Outline for Problem 9.4

a. (1) \((12 \times $11,200) - $61,232 = $73,168\)
   (2) \($842,500 - $73,168 = $769,332\)
   (3) $61,232.

b. (1) \($232,200 - $189,400 = $42,800\)
   (2) $189,400
   (3) $60,000 - $42,800 = $17,200.

c. (1) \(12 \times $1,500 = $18,000\)
   (2) \($87,436 - $18,000 = $69,436\)
   (3) \($25,674 - $18,000 = $7,674\)

Solution Outline for Problem 9.5

1. Expense = $147,600. Liability = $42,000 + $147,600 - $157,400 = $32,200
2. Expense = $100,500 + $79,400 = $179,900. Liability = $64,000 + $179,900 - ($107,500 + $99,800) = $36,600
3. DR Warranty expense $179,900  
   CR Warranty liability $179,900  
   DR Warranty liability $207,300  
   CR Inventory $99,800  
   CR Cash (or Wages payable) $107,500
4. The expense would be $207,300 ($99,800 + $107,500). No liability at the beginning or end of the year.
5. It might be appropriate to handle this disaster on a cash basis, without disturbing the accounting for general warranty service dealt with above. It might be hard to estimate the future costs, but if those were thought significant, they should be accrued separately from the other warranty liability. It might be that the disaster would damage the company’s reputation and prompt more returns and warranty problems on other products, so Balmer may need to revise the way it estimates other warranty costs as well.

Solution Outline for Problem 9.6

(a) Expense = 4,394,051 – (15,254,182 – 12,261,968) = 1,401,837
(b) Current = 12,061,968 – 8,749,453 = 3,512,515
(c) Noncurrent = 8,749,453
    Note: payment of 4,639,373 represents 3,512,515 of principal payments and 1,126,858 of interest

Solution Outline for Problem 9.7

1. Deferred revenue should be 58,000 (250,000 – 192,000). No expense related to these fees recorded until next year.
4. Year-end liability = 218,320 + 140,000 – 142,280 = 216,040. Expense = 140,000.
5. Probably just expense this as a one-time item, increasing the expense to $215,000 but not changing the liability. However, this could be a reason to re-think the amount of the annual warranty accrual, which could further change the liability and expense.

Solution Outline for Problem 9.8

1. Interest = 2,480,000 – 983,500 = 1,496,500
2. Interest = 1,849,750 + 67,000 = 1,916,750. Liability = 22,380,720 + 67,000 = 22,447,720.
4. Expense = 182,920 + (106,490 – 62,040) = 227,370. This would reduce income before tax by 227,370 – 182,920 = 44,450

Solution Outline for Problem 9.9

a. (1) Discount = $2.50 × 10,000 = $25,000
   (2) DR Cash 975,000, CR Bonded debt liability 1,000,000, DR Bond discount (contra liability) 25,000.
   (3) Higher, as the discount is amortized.
b. (1) Discount = $85,000
   (2) DR Cash 915,000, CR Bonded debt liability 1,000,000, DR Bond discount (contra liability) 85,000
   (3) Higher, as the discount is amortized.
c. (1) Premium = $50,000 (5% of $1 million)
   (2) DR Cash 1,050,000, CR Bonded debt liability 1,000,000, CR Bond premium “liability,” 50,000
   (3) Lower, as the premium is amortized.

Solution Outline for Problem 9.10

a) DR Cash 46,200,000
   CR Bonded debt 42,000,000
   CR Bond Premium 4,200,000
b) When the bond premium is amortized, it will be credited against the interest expense, making it lower. The Journal entry is DR Bond premium, CR Interest expense.
c) Since the interest expense will decrease when the bond premium is amortized, the company is paying an equivalently lower rate than the 8.5% coupon.
Solution Outline for Problem 9.11

1. (a) DR Cash 47,074,275
   DR Discount 2,925,725
   CR Bonded debt 50,000,000

(b) Liability = 47,074,275 (i.e. 50,000,000 – 2,925,725)

2. More. Due to amortizing the discount. The bonds are issued at a discount so the market rate is higher than 6.2%.

Solution Outline for Problem 9.12

1. Liability = face value of bonds + premium on bond issue.
2. Premium is amortized so by due date it is gone and the balance sheet liability equals the face value of the bonds.
3. Yes, the income statement will show a smaller expense as the premium is amortized giving a credit to the expense. But there is no effect on cash flow, as the amortization is adjusted away leaving the amount paid as a deduction from cash. The cash flow statement won't show this directly, but the result is that only what is actually paid affects cash.

Solution Outline for Problem 9.13

1. Future income tax expense and the related liability arise from a joint desire to represent the estimated liability for tax consequences of present accounting results and to match the income tax expense to the recognition of revenue and other expenses. Without this procedure, it is thought, both income statement and balance sheet would be deficient.
2. Income tax allocation allocates the income tax expense to different financial statement periods than the periods in which the tax is paid, in the same way that accrual accounting allocates revenues and expenses potentially to different periods than the associated cash receipts and disbursements.
3. Using the now-GAAP liability method, the future portion of income tax expense is determined by adjusting the balance sheet estimated liability. This gets the balance sheet “right,” but means that adjustments to that liability (e.g., for changes in tax rates or laws) are made against this year’s income even though they may have little or nothing to do with the revenue earned and the other expenses matched to it.

Solution Outline for Problem 9.14

Permanent differences are revenues or expenses that are included in net income for accounting purposes but are either never taxable or never deductible for tax purposes. Permanent differences only affect the apparent tax rate of the company, not the tax liability.

Temporary differences arise when items are taxable or deductible for tax purposes in different periods from when they are recognized in the accounting records. Therefore the actual tax payable to the tax department for a particular period does not necessarily agree to the payable that is based on accounting net income.
Solution Outline for Problem 9.15

The purpose of future income tax (FIT) accounting is to reconcile two divergent factors: (1) income tax expense on the income statement ought to match the rest of the accounting; and (2) the income tax actually due to the government is based on the government's income tax laws rather than necessarily on the income statement's accounting income figure. FIT accounting is a way of getting these two unequal factors into the same set of financial statements.

The future portion of income tax expense is based on an analysis of the balance sheet accounts. This approach gives priority to the balance sheet. Future income tax liabilities are based on tax incentives such as capital cost allowance that is an accelerated amortization method. Temporary differences such as the CCA being higher in earlier years create a debit to income tax expense and a credit to future income tax liability.

Future income tax liability is an estimate of the additional tax that will eventually have to be paid. This “liability method” of income tax allocation, which is now in effect in Canada, focuses on the balance sheet accounts and the differences between tax costs and book values. It focuses on the resulting measurement of the future income tax liability (rather than matching the income tax expense to the income statement’s figures, the focus of the prior income tax accounting method).

Solution Outline for Problem 9.16

1) Larger - with income tax allocation, CCA for a new asset would be greater than amortization, causing a positive future income tax expense (assumes CCA is calculated on a declining balance basis and amortization is calculated on a straight-line basis)

2) Smaller - with income tax allocation, amortization of an old asset would be greater than CCA, causing a negative future income tax expense (same as assumption as 1))

3) i) up because taxable income will be higher
   ii) down because it would be a negative expense (amortization greater than CCA)
   iii) no effect because the current tax increase and future tax decrease would be the same

4) i ii iii
a. down no effect down
b. down up no effect
c. no effect no effect no effect
d. no effect no effect no effect
e. no effect no effect no effect
f. up no effect up
Solution Outline for Problem 9.17

1. a. Current portion of tax expense:
   Income before tax $648,960
   Minus nontaxable revenue (29,650)
   Minus excess of capital cost allowance over amortization (343,502)
   Taxable income $275,808
   Current portion of tax expense = $275,808 \times 0.32 = $88,259

b. Future portion of tax expense:
   CCA-amortization difference $343,502 \times 0.32 = $109,921 future portion.

c. Net income = $648,960 – $198,180 total tax expense = $450,780

d. Future income tax liability = $329,612 + $109,921 = $439,533

e. Retained earnings = $3,949,286 + $450,780 = $4,400,066

2. a. No change from part 1 ($88,259)
   b. Future portion = $420,500 – $329,612 = $90,888
   c. Net income = $648,960 – ($88,259 + $90,888) = $469,813
   d. Future income tax liability is the new estimate, $420,500
   e. Retained earnings = $3,949,286 + $469,813 = $4,419,099

Solution Outline for Problem 9.18

Year 1:
   a. $350,000 \times 0.10 = $35,000
   b. $120,000 + $35,000 amortization – $35,000 CCA = $120,000
   c. Answer (b) \times 0.36 = $43,200
   d. (CCA – amortization) \times 0.36 = ($35,000 – $35,000) \times 0.36 = 0
   e. $43,200 + 0 = $43,200
   f. $120,000 – answer (e) or answer (c) + (d) = $120,000 – $43,200 = $76,800
   g. Answer (d) = 0

Year 2:
   a. ($350,000 – $35,000) \times 0.20 = $63,000
   b. $120,000 + $35,000 amortization – $63,000 CCA = $92,000
   c. Answer (b) \times 0.36 = $33,120
   d. (CCA – amortization) \times 0.36 = ($63,000 – $35,000) \times 0.36 = $10,080
   e. $33,120 + $10,080 = $43,200
   f. $120,000 – answer (e) or answer (c) + (d) = $120,000 – $43,200 = $76,800
   g. Year 1 + answer (d) = 0 + $10,080 = $10,080

Year 3:
   a. $350,000 – ($35,000 + $63,000) \times 0.20 = $50,400
   b. $120,000 + $35,000 amortization – $50,400 CCA = $104,600
   c. Answer (b) \times 0.36 = $37,656
   d. (CCA – amortization) \times 0.36 = ($50,400 – $35,000) \times 0.36 = $5,544
   e. $37,656 + $5,544 = $43,200
   f. $120,000 – answer (e) or answer (c) + (d) = $120,000 – $43,200 = $76,800
   g. Year 2 + answer (d) = $10,080 + $5,544 = $15,624
Solution Outline for Problem 9.19

a) 2006: 538,340 - (129,420 + 45,450) = 363,790
    2008: (51,100) - ((27,800) + 9,250) = (32,550)
    2009: 42,775 - (27,480 + (5,270)) = 20,565

b) 142,530 + 51,150 + 45,450 + 27,610 + 9,250 - 5,270 = 270,720

c) (27,800) + 9,250 = (18,550) negative expense, or income tax recovery

d) Current tax depends on taxable income, whereas future income tax depends on temporary differences between, for example, amortization and capital cost allowance. The two can go in opposite directions.

e) Assuming the future income tax arises from an amortization vs. CCA difference, amortization was less than CCA in 2005 and 2007 and more in 2009. (So: no, no, yes)

f) 2007 (47,300 + 27,610)/217,350 = 34.5%
    2008 ((27,800) + 9,250)/(51,000) = 36.3%

Solution Outline for Problem 9.20

1. a. Current portion of tax expense:
   Income before tax $ 2,211,305
   Minus non-taxable revenue (88,860)
   Add back non-deductible expenses 50,557
   Add back amortization 4,382,436
   Deduct capital cost allowance (4,045,730)
   Taxable income $ 2,509,708

   Current tax = $2,509,708 x .35% = $878,398

b. Future portion of tax expense:
   ($4,045,730 - $4,382,436) x .35 = ($117,847)

c. NI = $2,211,305 - $760,551 total tax expense ($878,398 - $117,847) = $1,450,754

d. Future income tax liability = $2,513,140 + ($117,847) = $2,395,293

e. Retained earnings = $25,492,725 + $1,450,754 - $500,000 = $26,443,479

2. a. No change from Part 1 ($878,398)
   b. Future portion: $2,340,500 - $2,513,140 = ($172,640)
   c. Net income = $2,211,305 - ($878,398 + ($172,640)) = $1,505,547
   d. Future income tax liability is the new estimate, $2,340,500
   e. Retained earnings = $25,492,725 + $1,505,547 - $500,000
                        = $26,498,272
Solution Outline for Problem 9.21

1. Calculations:

Current portion of income tax expense  = $23,760 x .36 = $8,554

Future portion of income tax expense  = $3,737 x .36 = $1,345

Journal entry:
- DR Current portion of income tax expense  8,554
- CR Income tax payable      8,554
- DR Future portion of income tax expense  1,345
- CR Future income tax liability     1,345

2. Net income for 2006

= $26,600 - ($8,554 + $1,345) = $16,701

Solution Outline for Problem 9.22

1. There is only one overall equity account for a proprietorship because there is no legal distinction between the proprietor’s original capital contribution and retained earnings.

2. The conversion privilege makes it a bit judgmental as to whether the security should be called a bond, a preferred share, or a sort of common share in waiting. Legal details are consulted in deciding where to put such securities, but the fuzzy distinction at least makes disclosure of the privilege a good idea so the reader of the financial statements can decide how important it is. Also, in calculating earnings per share (EPS), the possibility of such a conversion’s happening and changing the number of common shares outstanding is one of the things taken into account when calculating the “fully diluted” versions of EPS so people can judge the potential effect on earnings that common shareholders may expect to be attributed to their shares.

3. A split is ignored because it is thought to be just a recalculation of the number of shares, without much effect on the market price of the shares. A stock dividend, though, is thought to be an actual distribution of some retained earnings and is more likely to have an effect on the market price and to reflect a real increase in the company’s share capital. (These different expectations are traditional but have been questioned by some accounting research.)

4. The balance sheet is a sort of statement of record, in which each owner (and creditor) should be able to see his or her position accurately set out. The equity section is therefore driven by legal details and by a perceived demand that these details be described.

5. It doesn’t matter much, given the protection to shareholders provided in most legal jurisdictions nowadays. The main effect on the balance sheet is that if a no-par share is issued for say $10, that whole amount is added to share capital, whereas if a par value share (say $3 par) is issued for $10, only $3 is added to share capital and the other $7 must be put into a special equity account called contributed surplus or capital in excess of par value. There may be legal rules about whether that extra over par may be used to pay dividends or used in other ways.

Solution Outline for Problem 9.23

1. Some are convertible bonds, preferred shares, foreign currency. Convertible bonds may eventually become share equity, but are presently a form of debt instrument. Preferred shares often have characteristics that are more typical of debt, i.e. they are redeemable and have a set dividend that is similar to an interest payment. Foreign currency translation adjustment accounts are included in shareholders equity, but do not really represent increased value to the shareholder.
2. The differentiation between debt and equity is problematic. Some companies disclose these items above the equity accounts, but not really within the liability accounts. Maybe the only effective split is now between current and noncurrent.

3. Because interpreting the rest of the balance sheet depends on the form of business, equity accounting is partly a legal record. For partnerships and proprietorships the split between contributed capital and accumulated earnings is less obvious or important.

4. Disclosure of rights, etc., disclosure of commitments to issue shares and associated diluted EPS calculation, retained earnings balance is legal amount of dividends, share changes give information about other people now also owners, etc.

Solution Outline for Problem 9.24

1. Barbara: \[105,000 + 30\% \times 600,000 - 143,600 = 141,100\]
   Ian: \[23,900 + 30\% \times 600,000 - 150,100 = 53,800\]
   Gordon: \[183,200 + 40\% \times 600,000 - 61,000 = 362,200\]

   \[557,400\]

2. Liabilities = 435,400, Capital = 557,400, Assets (deduced) = 992,800.

3. This puts Gordon into a negative capital position of 21,100. The total capital is now 482,500, and total assets are 917,900. Some possibilities to consider: (1) leave balance sheet as is, with net capital; (2) transfer Gordon's capital to assets as an account receivable; (3) raise Gordon's capital to zero by deducting shares of the over-withdrawal from Barbara and Gilles.

Solution Outline for Problem 9.26

a. Based on management intent this is an available-for-sale investment. It should be accounted for using the “fair value” method with unrealized gains or losses included in comprehensive income.
b. Based on management intent this is a held to maturity investment and should be accounted for using the “cost” method.
c. This is an available-for-sale investment based on management intent and should be accounted for using the “fair value” method including unrealized gains or losses in comprehensive income.
d. The requirement of unanimous agreement indicates common control. This is therefore a joint venture and should be accounted for using “proportionate consolidation”.
e. Wise does not have a majority of the Board of Directors. The strong influence evidenced is not control. This is a “significant influence” investment and should be accounted for on the “equity” basis.

Solution Outline for Problem 9.27

1. Millwood’s asset of over $800 million: Argument is that the pension plan really is owned by Millwood and that the company could call on the plan’s assets if it needed to. The idea here is that the pension plan is not a firm liability, maybe not even a moral liability, because if the company got into trouble or had to downsize its staff, the pension assets would be available to it. Millwood asset of $36 million ($814 - $778 million): Argument is that the company has paid in amounts estimated from time to time as needed to keep the pension plan viable. If the plan has more money than it needs, Millwood has paid too much and should be able to get the excess back. The idea here is that the company, not the employees, owns the plan surplus.
Neither: Argument is that there is a moral obligation at least, perhaps even a legal one, that the company keep its hands off the pension plan. Any surplus results from employees’ contributions, not just Millwood’s. A surplus is a bit of protection against future reversals. If the plan continues to have a surplus, the company might reduce its contributions in the future, but it should not expect to get any cash back.

2. Some objections to this idea are discussed in 1 above. Discussion of the idea could involve legal, ethical or “good management” arguments (e.g. how would the employees feel if they thought their pension plan was being “raided”?) An argument for the idea is that pension expense has been overstated, thus understating income in the past, and that taking the excess into income would just correct a past error. Another argument for it, (irrespective of the legalities involved,) would be that the company’s responsibility is to supplement the employees’ contributions to keep the pension plan financially viable, but it is not responsible to make it more than viable.

3. Now we have an underfunding of $38 million. There is no excess asset, instead a liability, or at least contingent liability, of $38 million. This weakens the argument that the pension plan’s assets are Millwood’s, and using the logic when there was an excess, Millwood should now consider recording the $38 million as a liability for its responsibility to make the plan viable. This would require a charge against income of $38 million, or perhaps a deferred asset of that amount that could be amortized to income over a few years into the future. (Deferral might be argued for if there was some structural problem in the plan that needed fixing, but would be harder to justify if the underfunding was related to insufficient contributions by Millwood in the past.)

4. It could be argued that Millwood’s liability should include any underfunding that it is obligated to make up. This would increase its liabilities and hit its income by $38 million before income tax, either now or over a few future years (see part 3). Disclosure should include any underfunding and some might argue that it should include the overall financial situation of the pension trustee.

Solution Outline to Problem 9.28

It is obvious that financial accounting has difficulty dealing with the complex problems mentioned in the question. GAAP have been amended in an attempt to deal with many of these issues. However, in many cases the accounts are not adjusted, but greater disclosure is required. It is also true that GAAP do not change very quickly in response to innovative financial arrangements.

Some argue that the problem is deeper and rests with the weakness of the historical cost model. These people claim that the use of market values and estimated fair values are the only answer. This raises the question whether all accounts in all financial statements need to be adjusted to market or whether a composite model with only some numbers at market values would suffice.

Solution Outline for Problem 9.29

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<td>$100,000</td>
</tr>
<tr>
<td>Income from Brassy on equity basis</td>
<td>$(0.40 \times 600,000)$</td>
<td>$240,000</td>
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<tr>
<td>Extra income if equity basis were used</td>
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<td>$140,000</td>
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<td>Present income of China Sports</td>
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<td>800,000</td>
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<tr>
<td>Revised income</td>
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<td>$940,000</td>
</tr>
</tbody>
</table>
Solution Outline for Problem 9.30

2005 - Cost basis
Under the cost basis, Widgets-for-u would have recorded revenue of $12,750 ($85,000 x 0.15) for the investment

2006 – Equity basis
Under the equity basis, Widgets-for-u would have recorded revenue of $137,500 ($550,000 x 0.25) for its investment. The dividend is not counted as revenue but would be deducted from the parent company’s investment account.

Solution Outline for Problem 9.31

1. a. Revenue since acquisition = $400,000 x 23% = $92,000
   b. Present balance in balance sheet investment account:
      - Initial investment $1,500,000
      - Share of income (above) 92,000
      - Less dividends ($160,000 x 23%) (36,800)
      - Present balance $1,555,200

2. a. Revenue equals dividends received (as above) = $36,800
   b. Investment account would remain unchanged at $1,500,000

Solution Outline for Problem 9.33

1. If the parent owns voting control of the subsidiary, there is a presumption that the two companies become part of a single larger economic unit. (Or that they should, that the parent company must have some economic rationale for holding a controlling interest in the subsidiary.) The subsidiary is “consolidated”, which means that its assets, liabilities, revenues and expenses are added individually to those of the parent, so that the status and performance of the presumed larger economic entity may be portrayed. The result should be a more realistic and complete portrayal of the resources and obligations of the parent through its own affairs plus its control of the subsidiary.

2. The assumption followed in the so-called “Purchase” method of consolidation is that on the date of acquisition, a new entity is formed, consisting of the parent plus the various individual assets and liabilities of the subsidiary. Any equity (share capital and retained earnings) of the subsidiary is part of the past, and since the consolidated figures are prepared from the parent's (purchaser's) point of view, that equity is not its equity and so is ignored. (Minority owners' share of that equity is continued in the consolidated balance sheet as a liability, but the majority's (parent's) share of the equity is offset against the parent's investment cost so that neither appears in the consolidated figures.)

3. Whether the consolidated picture is stronger or weaker depends on the relative strength of the subsidiary. If it is financially stronger than the parent, the consolidated figures will be stronger than the parent's unconsolidated figures; if it is weaker, the consolidated figures will be weaker than the parent's.

4. Consolidated goodwill is the difference between what the parent paid for the portion of the subsidiary it acquired and the same portion of the sum of the fair values of the subsidiary's assets minus its liabilities at acquisition date. So, for example, if the parent pays $100,000 for 75% of the subsidiary's voting shares and the fair values at that date of the subsidiary's assets are $280,000 and its liabilities are $200,000, then consolidated goodwill equals $100,000 - (.75 ($280,000 - $200,000)), or $40,000.
Solution Outline for Problem 9.34

1. The large goodwill values arose because the purchase price paid (in the form of inflated shares) by far exceeded the fair market values of the net assets of the companies acquired. Share capital also increased as a result of the acquisitions.

2. These companies’ debt-equity ratios would have decreased substantially because shares were issued in exchange for the investments. When the market value of their stock declined, the debt-equity ratio would not be affected because the share capital on the balance sheet would be fixed at the high historical cost of these transactions. Working capital wouldn’t be affected – cash was not involved in the initial transaction.

3. (a) Consolidated goodwill should have been written off to reflect the impaired value. This is required by GAAP. (b) The inflated share capital number would not be adjusted because share capital is carried on the balance sheet at the initial transaction cost.

Solution Outline for Problem 9.35

1. Goodwill on consolidation:
   a. Net fair value of Piddling’s equity ($16,100,000 – $8,300,000) $ 7,800,000
   b. Portion acquired (80% of $7,800,000) 6,240,000
   c. Purchase price for that portion 10,800,000
   d. Goodwill (c) minus (b) 4,560,000

2. Minority is credited with no goodwill and so is assigned 20% of the book value of Piddling’s equity. 20% of $6,400,000 = $1,280,000.

3. Consolidated balance sheet figures are shown below.

<table>
<thead>
<tr>
<th>Consolidated</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General assets</td>
<td></td>
</tr>
<tr>
<td>Big</td>
<td>$105,000,000</td>
</tr>
<tr>
<td>Piddling</td>
<td>14,600,000</td>
</tr>
<tr>
<td>Portion of fair value changes</td>
<td>1,200,000</td>
</tr>
<tr>
<td>(0.80 × [16,100,000 – 14,600,000])</td>
<td></td>
</tr>
<tr>
<td>Investment in Piddling</td>
<td></td>
</tr>
<tr>
<td>Does not appear on consolidated balance sheet because it is an intercompany item</td>
<td>0</td>
</tr>
<tr>
<td>Goodwill</td>
<td>From part 1</td>
</tr>
<tr>
<td></td>
<td>4,560,000</td>
</tr>
<tr>
<td>Total consolidated assets</td>
<td>$125,360,000</td>
</tr>
<tr>
<td>General liabilities</td>
<td></td>
</tr>
<tr>
<td>Big</td>
<td>$ 83,700,000</td>
</tr>
<tr>
<td>Piddling</td>
<td>8,200,000</td>
</tr>
<tr>
<td>Portion of fair value changes</td>
<td>80,000</td>
</tr>
<tr>
<td>(0.80 × [$8,300,000 – $8,200,000])</td>
<td></td>
</tr>
<tr>
<td>Noncontrolling (minority) interest</td>
<td></td>
</tr>
<tr>
<td>From part 2 above</td>
<td>1,280,000</td>
</tr>
<tr>
<td>Equity</td>
<td></td>
</tr>
<tr>
<td>Parent’s equity only appears on the consolidated balance sheet; subsidiary’s equity does not appear because it is an intercompany item</td>
<td>32,100,000</td>
</tr>
<tr>
<td>Total consolidated liabilities and equity</td>
<td>$125,360,000</td>
</tr>
</tbody>
</table>
Solution Outline for Problem 9.36

1. Important facts for consolidation:
   - only 65% purchased
   - fair market value of noncurrent assets ($28 million)
   - purchase price ($33 million)
   Fair market value of net assets = \((10 + 45 + 28) - (10 + 15) = 58\) million

   \[65\% \text{ of } 58 \text{ million } = \$37.70 \text{ million as parent's share of net assets.}\]

   Therefore, goodwill equals \$38 - \$37.70 \text{ million } = \$.3 \text{ million.}\]

2. a. Consolidated assets = Fines's assets - investment in Steel + Steel's assets at book value
   + 65% of the fair value minus book value difference for Steel + goodwill.

<table>
<thead>
<tr>
<th></th>
<th>Fine</th>
<th>Steel</th>
<th>Adj.</th>
<th>Consol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEA</td>
<td>112</td>
<td>10</td>
<td>0</td>
<td>$122.00</td>
</tr>
<tr>
<td>OCA</td>
<td>304</td>
<td>45</td>
<td>0</td>
<td>349.00</td>
</tr>
<tr>
<td>NCA</td>
<td>432</td>
<td>25</td>
<td>1.95*</td>
<td>458.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$892.25</td>
</tr>
</tbody>
</table>

   * 65% of $3, Fines's value of $28 minus Steel's book value of $25.

b. Consolidated owner's equity:
   Take only the share capital and retained earnings of the parent company (Fine) = $288 ($160 + $128).

c. Consolidated liabilities = Fine's liabilities + Steel's liabilities at book value + 65% of the
   fair value minus book value difference for Steel + minority interest.

<table>
<thead>
<tr>
<th></th>
<th>Fine</th>
<th>Steel</th>
<th>Adj.</th>
<th>Consol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEL</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>$28.00</td>
</tr>
<tr>
<td>OCL</td>
<td>260</td>
<td>10</td>
<td>0</td>
<td>270.00</td>
</tr>
<tr>
<td>NCL</td>
<td>272</td>
<td>15</td>
<td>0</td>
<td>287.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$604.25</td>
</tr>
</tbody>
</table>

   (Check of consolidated figures: $892.25 (assets) = $604.25 (liabilities) + $288 (equity))
Solution Outline for Problem 9.37

1. Goodwill purchased:
   i. Net fair value of Mega's assets (i.e., what did Trifecta get for its money?):

<table>
<thead>
<tr>
<th>Asset Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 0</td>
</tr>
<tr>
<td>Receivables (book value is OK)</td>
<td>58,000</td>
</tr>
<tr>
<td>Inventories (replacement cost equals book value)</td>
<td>60,000</td>
</tr>
<tr>
<td>Capital assets (book value OK except add $9,000 for increased land value)</td>
<td>84,000</td>
</tr>
<tr>
<td>Liabilities (book value is OK)</td>
<td>(95,000)</td>
</tr>
<tr>
<td><strong>Net fair value</strong></td>
<td><strong>$107,000</strong></td>
</tr>
</tbody>
</table>

   ii. Portion acquired (70% of $107,000) $ 74,900

   iii. Purchase price for that portion ($110,000 + $95,000) 205,000

   iv. Goodwill (iii minus ii) $ 130,100

2. Trifecta must have felt that there were intangible benefits to the acquisition, such as a fantastic customer list, good managers or other employees at Mega who were likely to stay, synergy or reduced competition with other of Trifecta's activities, good customer base, or good location.

3. This statement is false:
   - There is a deduction from consolidated income (and therefore consolidated retained earnings) for the minority interest in Mega's income (which is the same thing as saying that only the parent's share (70%) of Mega's income is added to consolidated retained earnings).
   - In addition, any intercompany profits present in either the parent's or subsidiary's accounts for the year will be eliminated. If there are any, eliminating them further reduces the impact of Mega on the consolidated figures.

Solution Outline for Problem 9.38

1. The “equity” basis means that because NI owns enough of RC to influence its operations, International recognizes in its accounts its share of the incomes (or losses) earned by RC without waiting for RC to pay that share to NI in dividends.

2. Present investment account:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$8,500,000</td>
</tr>
<tr>
<td>Share of RC income earned since acquisition (45% x $275,000)</td>
<td>123,750</td>
</tr>
<tr>
<td>Minus dividend received (45% x $50,000)</td>
<td>(22,500)</td>
</tr>
<tr>
<td>Present investment account balance</td>
<td>$8,601,250</td>
</tr>
</tbody>
</table>
3. There are two answers to this:
   a. On NI's consolidated balance sheet, the account “Investment in RC” would be removed and instead all the balance sheet accounts of RC would be added to the corresponding NI accounts (at adjusted fair values), and accounts for consolidated goodwill and minority interest would appear.
   b. The two companies would still have to prepare their own separate financial statements (e.g. for legal and income tax reasons), so the existence of consolidated statements would not affect NI’s unconsolidated balance sheet.

4. Calculation of consolidated goodwill at date of acquisition:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$8,500,000</td>
</tr>
<tr>
<td>Assets acquired (fair values):</td>
<td></td>
</tr>
<tr>
<td>65% x ($16,000,000 - $8,000,000)</td>
<td>5,200,000</td>
</tr>
<tr>
<td>Consolidated goodwill</td>
<td>3,300,000</td>
</tr>
</tbody>
</table>

**Solution Outline for Problem 9.39**

1. Some possible comments for and against consolidation:
   For:
   i. The brewer does control the furniture chain so there is a larger economic entity, which consolidation represents.
   ii. If the brewer is already diversified, there is an “apples and oranges” mixture already.
   iii. The brewer may have wanted some synergy with the furniture company, some control of its activities, otherwise why go for control?
   iv. Consolidation is an accounting method of measuring status and performance; it does not interfere with any business arrangements between the brewer and the furniture company.
   v. Separate reporting of different economic parts (“segment reporting”) can provide some information lost through consolidation.
   Against:
   i. Consolidation does imply economic combination and probably a longer term relationship: if these are not intended or do not occur, consolidation may be misleading.
   ii. Consolidation produces aggregate figures that are hard to interpret, particularly if they include varied kinds of businesses; adding the furniture company into the brewer’s figures just makes the situation worse.
   iii. Doing the calculations and preparing the consolidated reports takes time and costs money, and these costs may exceed the benefit.

2. Using the standard calculation, goodwill is calculated:
   i. Fair value acquired: 60% of ($87,000,000 assets minus ($14,000,000 + $26,000,000 + $20,000,000) liabilities plus $3,000,000 increase in land) = 60% of $30,000,000 = $18,000,000
   ii. Purchase price = $54,000,000
   iii. Goodwill = $36,000,000
3. a. Consolidated total assets would go up. The investment cost of $54,000,000 would be deleted but assets of $87,000,000 plus 60% of the $3,000,000 increase in land plus goodwill of $36,000,000 would be added.
   b. Consolidated shareholders’ equity would not be affected (no portion of the furniture company’s equity at date of acquisition would be added to consolidated equity).
   c. No effect on consolidated income up to acquisition date. After that date, it is not possible to tell the effect: if the furniture company does well (enough to cover amortization of consolidated goodwill, etc.), the consolidated income will go up; if it does not, that income will fall.

4. It depends on how “substantial” it is. It has to be enough to cover goodwill amortization and other consolidation adjustments before it can have any positive effect. Then it has to be large enough after deducting the 40% minority interest to be significant to the presumably larger brewery figures.

**Solution Outline to Problem 9.40**

1. The equity basis is being used, because the investment account balance is not the cost of $154,000,000.

   - Original cost: $165,000,000
   - Share of Grow Food income: (70% x $39,000,000) = 27,300,000
   - Minus dividends received: (70% x $15,000,000) = (10,500,000)
   - Investment asset on equity basis: $181,800,000

2. The difference is that goodwill is presumed to reflect the parent company's (Foodex) action in acquiring the shares, whereas the minority interest is presumed to reflect the minority's continuing investment in Grow Food. Therefore assets and liabilities of Grow Food are measured at fair (market) values because of the purchase transaction (Foodex is presumed to have bought them for whatever they are currently worth, as with any purchase), but minority interest is measured at book value because there is no presumed transaction for the minority: they have not taken action, they have just continued as owners.

3. Consolidated net income (as much as it can be calculated with the data provided):

   - Sum of companies' incomes: ($74,200,000 + $39,000,000) = $113,200,000
   - Subtract minority's share of Grow Food's income: (30% x $39,000,000) = 11,700,000
   - Subtract intercompany profit (the Grow Food income Foodex has already included on the equity basis, as calculated in part 1): (27,300,000)
   - Consolidated net income: $74,200,000

   (It is interesting to note that consolidated net income equals Foodex’s income. That's because, using the equity basis, Foodex's income already includes its share of Grow Food's income.)
### Solution Outline for Problem 9.41

#### 1. 100% Purchase

<table>
<thead>
<tr>
<th></th>
<th>Winnipeg</th>
<th>Red River</th>
<th>Adj.</th>
<th>Consol.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>1,124,645</td>
<td>1,005,789</td>
<td>98,522</td>
<td>2,228,956</td>
</tr>
<tr>
<td>Noncurrent assets</td>
<td>3,678,872</td>
<td>2,890,003</td>
<td>150,719</td>
<td>6,719,594</td>
</tr>
<tr>
<td>Investments</td>
<td>3,400,000 (a)</td>
<td>- 3,400,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Goodwill</td>
<td></td>
<td>154,288 (b)</td>
<td></td>
<td>154,288</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,203,517</td>
<td>3,895,792</td>
<td>- 2,996,471</td>
<td>9,102,838</td>
</tr>
</tbody>
</table>

- (a) Purchase and related financing - assume financed by way of long term financing.
- (b) Purchase price 3,400,000
- (c) FMV of net assets

<table>
<thead>
<tr>
<th></th>
<th>100% of FMV</th>
<th>100% of BV</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>1,104,311</td>
<td>1,005,789</td>
<td>98,522</td>
</tr>
<tr>
<td>Noncurrent assets</td>
<td>3,040,722</td>
<td>2,890,003</td>
<td>150,719</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>899,321</td>
<td>879,321</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,245,712</td>
<td>3,245,712</td>
<td>100%</td>
</tr>
</tbody>
</table>

| Goodwill             | 154,288     |

#### (c) FMV adjustments

<table>
<thead>
<tr>
<th></th>
<th>100% of FMV</th>
<th>100% of BV</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>1,104,311</td>
<td>1,005,789</td>
<td>98,522</td>
</tr>
<tr>
<td>Noncurrent assets</td>
<td>3,040,722</td>
<td>2,890,003</td>
<td>150,719</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>899,321</td>
<td>879,321</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,245,712</td>
<td>3,245,712</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### 75% Purchase

<table>
<thead>
<tr>
<th></th>
<th>Winnipeg</th>
<th>Red River</th>
<th>Adj.</th>
<th>Consol.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>1,124,645</td>
<td>1,005,789</td>
<td>73,892</td>
<td>2,204,326</td>
</tr>
<tr>
<td>Noncurrent assets</td>
<td>3,678,872</td>
<td>2,890,003</td>
<td>78,755</td>
<td>6,647,630</td>
</tr>
<tr>
<td>Investments</td>
<td>2,400,000 (a)</td>
<td>-2,400,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Goodwill</td>
<td></td>
<td>(b) -</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,203,517</td>
<td>3,895,792</td>
<td>- 2,247,353</td>
<td>8,851,956</td>
</tr>
</tbody>
</table>

|                      | 1,076,554 | 879,321 | 15,000 | 1,970,875 |
| Current liabilities  | 2,400,000 (a) | 754,118 (d) | 754,118 |
| Noncontrolling interest | 3,726,963 | 3,016,471 | -3,016,471| 3,726,963 |
| **Total**            | 7,203,517| 3,895,792 | - 2,247,353| 8,851,956|
(a) Purchase and related financing - assume financed by way of long term financing.

(b) Purchase price

<table>
<thead>
<tr>
<th>FMV of net assets</th>
<th>2,400,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>1,104,311</td>
</tr>
<tr>
<td>Noncurrent assets</td>
<td>3,040,722</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>- 899,321</td>
</tr>
<tr>
<td></td>
<td>3,245,712</td>
</tr>
<tr>
<td>Goodwill</td>
<td>- 34,284</td>
</tr>
<tr>
<td></td>
<td>75% 2,434,284</td>
</tr>
</tbody>
</table>

Assume reduction of FMV of noncurrent assets by amount of negative goodwill.

(c) FMV adjustments

<table>
<thead>
<tr>
<th>Current assets</th>
<th>75% of FMV</th>
<th>75% of BV</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noncurrent assets</td>
<td>828,233</td>
<td>754,342</td>
<td>73,892</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>2,280,542</td>
<td>2,167,502</td>
<td>113,039</td>
</tr>
</tbody>
</table>

(d) Noncontrolling interest

| 25% of BV of $3,016,471 | = 754,118 |

2. a. Differences in the consolidated balance sheets

- Assets and liabilities are higher under the 100% purchase scenario.
- 100% of the differences between FMV and BV of Red Rivers assets and liabilities are added to the consolidated balance sheet, rather than only 75%.
- There is goodwill under the 100% purchase because the purchase price paid exceeds the FMV of net assets acquired. Under the 75% scenario, the purchase price paid is less than the FMV of net assets acquired, producing “negative goodwill” that reduces consolidated noncurrent assets.
- More financing would be required by Winnipeg to finance the 100% acquisition, increasing Winnipeg’s and therefore consolidated noncurrent liabilities.
- $1 million less financing would be required under the 75% purchase. But this is largely offset by the noncontrolling interest, representing an obligation that the combined company has to the minority owners of Red River shares.

b. The 75% purchase scenario appears the strongest, despite slightly lower total assets:

- The debt required to finance the acquisition is lower, so it the consolidated balance sheet reflects less risk.
- The debt-equity ratio is 1.38, compared to 1.44 under the 100% purchase scenario. If the noncontrolling interest is excluded, the debt-equity ratio is only 1.17.
- The working capital ratios are comparable under the two scenarios (1.12 for 75% purchase and 1.13 for 100% purchase).
Solution Outline for Problem 9.42


Solution Outline for Problem 9.43

a:2 (or 5); b:3; c:5 (or 2); d:6; e:10; f:7; g: 9; h:4; i:1; j:8

Solution Outline for Problem 9.44

Your talk may follow the outline below:

A. What are consolidated financial statements?
   1. Represent groups of corporations.
   2. Present two or more companies as one economic unit.
   3. Basic idea is to put the two or more financial statements together and add them up, plus or minus some adjustments.

B. Consolidated Balance Sheet
   1. Some accounts are simply added together, e.g. consolidated cash
   2. Some accounts involve adjustments to reflect fair market values e.g. consolidated property and equipment
   3. Intercompany receivables and payables are eliminated e.g. from consolidated accounts receivable and accounts payable
   4. Consolidated goodwill is created, the difference between what the parent paid for the subsidiary and the fair market value of the subsidiary’s net assets.
   5. Minority interest liability is created, which represents the portion of the subsidiary that the parent does not own
   6. Consolidated equity - includes just the parent’s equity at acquisition

C. Consolidated Income Statement
   1. Revenues and expenses exclude profits on intercompany transactions.
   2. Minority interest’s share of the subsidiary’s net income decreases consolidated net income.

Solution Outline for Problem 9.45

Some ideas:

- Indeed, double entry does sometimes creak and groan when we try to accommodate complex business circumstances within it. But perhaps it is sufficiently flexible to make the effort succeed.
- The commentator seems to be arguing that no attempts to improve accounting’s numbers should be made. If that were the rationale, there’d have been no improvements such as recording capital leases, future income taxes and long-term pension estimates.
- Perhaps disclosure is a good approach, because different people have such different views about such matters – with full disclosure, people can make their own adjustments to the numbers, rather than having to use numbers done in a way they don’t like.
- But forcing complex events into the double-entry system does make people think about both sides of the financing: what the company promises, and what it gets in return for those promises. Might help to produce some discipline in the use of financing methods.
There is a difference between adjusting the numbers and simply disclosing, as emphasized by the way media report financial information and also in the effects on ratios, etc. Disclosure may not be sufficient.

Possibly double entry is indeed too venerable, and the problems with off-balance-sheet issues are the “canary in the mineshaft” that tells us something is fundamentally wrong with the traditional accounting model.

Leaving these things out of the balance sheet might reduce the temptation to use them as ways of manipulating the balance sheet and so reduce the chance they will be employed for reasons of accounting appearance rather than good business reasons.

**Solution Outline to Problem 9.46**

Macro Ltd.

**Balance Sheet as at January 31, 2005**

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITY AND EQUITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets:</strong></td>
<td><strong>Current liabilities:</strong></td>
</tr>
<tr>
<td>Cash</td>
<td>$ 25,000</td>
</tr>
<tr>
<td>Cash in trust (Note 2)</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>Term deposits</td>
<td>4,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>46,000</td>
</tr>
<tr>
<td>Income tax receivable</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td><strong>Total current liabilities</strong></td>
</tr>
<tr>
<td>$ 82,000</td>
<td>$ 140,000</td>
</tr>
</tbody>
</table>

| **Noncurrent assets:** | **Noncurrent liabilities:** |
| Land (not written up) | $ 40,000 | Accounts payable | $ 5,000 |
| Building (Note 3) | 86,000 | Bank loan (Note 5) | 80,000 |
| Accum. amort. | 6,000 | Shareholders' loan (Note 6) | 60,000 |
| Investment (Note 4) | 12,000 | Future income taxes | 6,000 |
| Noncurrent assets | $132,000 | Noncurrent liabilities | $151,000 |
| **Noncurrent assets** | **Noncurrent liabilities** |
| $132,000 | $151,000 |

| **TOTAL** | **TOTAL** |
| $214,000 | $214,000 |

**Macro Ltd.**

**Statement of Retained Earnings for the Year ended January 31, 2005**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning balance</td>
<td>$ 25,000</td>
</tr>
<tr>
<td>Transfer balance to future income taxes</td>
<td>(6,000)</td>
</tr>
<tr>
<td>Correction of prior period error (Note 8)</td>
<td>*20,000</td>
</tr>
<tr>
<td>Revised beginning balance</td>
<td>$ 39,000</td>
</tr>
<tr>
<td>Net loss for the year</td>
<td>(31,000)</td>
</tr>
<tr>
<td>Dividends declared during the year (Note 11)</td>
<td>(20,000)</td>
</tr>
<tr>
<td>Ending balance (deficit)</td>
<td>$ (12,000)</td>
</tr>
</tbody>
</table>

*If an error is found in the prior year’s financial statements, the correction may also be made in the current year’s income statement if the error is considered insignificant or if it is a change in estimate. Changes in estimates are considered to be an inherent part of the accounting process, not errors.
### Income Statement for the Year ended January 31, 2005

**Service fee revenue (213 – 20)** $193,000

**Operating expenses:**

- Amortization $6,000
- General (170 – 50 unusual + 10 land adj.) 130,000
- Interest 12,000
- Repairs and maintenance 38,000

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization</td>
<td>$6,000</td>
</tr>
<tr>
<td>General (170 – 50 unusual + 10 land adj.)</td>
<td>130,000</td>
</tr>
<tr>
<td>Interest</td>
<td>12,000</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>38,000</td>
</tr>
</tbody>
</table>

**Operating income** $7,000

- Unusual bad debt loss (Note 9) (50,000)
- Gain on sale 15,000 **

**Loss before income tax** $(28,000)

- Income tax expense (Note 10)
  - Current portion (refundable) (1,000)
  - Future portion 4,000 3,000

**Net loss for the year** $(31,000)

** If the gain was considered extraordinary, it would be disclosed net of tax and be further down on the income statement.

### Notes to the January 31, 2005 Financial Statements

1. Description of accounting policies used for revenues, inventories, depreciation and any other significant policies.
2. Explanation of cash in trust.
3. Description of market valuation of building (appraisal).
4. Description of investment in ABC Ltd.
5. Repayment terms and security of bank loan.
6. Description of terms of shareholders’ loan.
7. Description of share capital authorized and issued.
8. Explanation of correction of prior period error.
10. Explanation of current and future portions of income tax expense.
11. Explanation of dividend declared that exceeds the retained earnings.

### Solution Outline for Case 9A

The case is written in anticipation that further information will be disclosed in the 2002 or later financial statements etc. of Pfizer. Therefore, to prepare for the case discussion, instructor and students should go to Pfizer’s web page and review annual reports, quarterly reports, press releases or other information that might be informative.

A possible case assignment would be to ask students to search Pfizer’s data and its stock performance and update the case information, or even use such information to prepare an initial answer to the first of the case’s five requirements. Students should be asked to watch particularly for any write-offs, goodwill impairment adjustments or other financial statement consequences of the Pharmacia acquisition.
Here are some thoughts about the five requirements of the case.

1. Business value and impact on shareholders of the Pharmacia acquisition.
   - There is not enough information in the case to answer this fully, and an introductory accounting course doesn’t equip students to address it very well anyway – the purpose of this part of the case is just to prompt some initial thought about the business circumstances that accounting is trying to represent. It’s part of the textbook’s general approach that accounting should be placed in a business context, not viewed as a free-standing set of procedures. If the acquisition was a good idea, it should lead to some positive consequences, such as better EPS, and if it was not a good idea, there may instead be write-offs or write-downs of goodwill and other assets, and even adjustments to the share capital equity accounts.
   - The case has a number of suggestions about the business value and impact on shareholders, including the idea that the shareholders of the acquiring company (Pfizer) don’t seem to benefit on average from such acquisitions, because usually too much is paid for the acquisition, thereby transferring wealth from the owners of the acquiring company to those of the acquired company.
   - There could be a general discussion of mergers and acquisitions as a business strategy, and of the kinds of accounts that might reflect the costs and benefits of mergers and acquisitions.
   - Perhaps the information subsequent to the textbook’s writing (latter 2002) suggested above will provide some illumination of the business value and shareholder effects.

2. Accounting for the acquisition.
   - The first step is to use the information subsequent to the case’s writing to determine how the accounting actually was done (if possible) so as to improve on the case’s speculation. The effects of such a huge acquisition should be big enough to notice in the 2002 and later Pfizer financial statements.
   - Pfizer may revise comparative information for past years to show it “as if” the acquisition had taken place then, so there may be value in comparing the 2001 figures from the Pfizer 2001 annual report, for example, to the 2001 figures in the 2002 annual report.
   - Value and meaning of goodwill will tie back to the discussion of the business value above. It would be useful to point out the effects of GAAP changes – goodwill is now just written off if impaired instead of being amortized. It might be possible to speculate on the effects on the income statement of this GAAP change.
   - There will also be effects on the total assets, total equity and perhaps debt. The case illustrates some possibilities – might be worth discussing how to interpret Pfizer’s ROA, ROE, D-E and other ratios, depending on which ones the students have studied to this point in the course.

3. Reducing the amount of goodwill?
   - This question should be discussed in the context of the answers to parts 1 and 2.
   - Assigning more value to other assets would result in more expenses because such other assets would be amortized, or included in expenses such as COGS. Thus by reducing the embarrassment of large goodwill, the cost of some of the goodwill would hit the income statement without having to wait for an impairment test. This cost would doubtless be hard to spot, because such other expenses would be routine and likely not discussed in Pfizer’s financial statements.
   - Reducing the credit to share capital would reduce the overall impact on the balance sheet (see the last bullet in part 2). This probably would make sense rather than deducting the reduction from retained earnings, but is unlikely to be done because it would be tantamount to telling Pharmacia shareholders that they did not get the value they thought in Pfizer shares.
Writing the goodwill off or down immediately would also be an admission of failure. If it could be seen so soon that the deal was bad, that would suggest incompetence in at least Pfizer’s senior management, and probably Pharmacia’s also.

All this indicates that once the deal is struck and the amount of goodwill is generated pretty well automatically from that, top management is largely stuck with following GAAP, and not reducing the goodwill value unless it is clearly impaired (presumably by some sort of subsequent event).

Solution Outline for Case 9A (Continued)

4. Cash flow effects.
   - Should be little immediate cash flow effect because no cash was involved in the deal except out-of-pocket costs.
   - But there will be some (positive) effect in the time since acquisition, so even the 2002 financial statements should show some cash flow improvement (unless the Pharmacia deal was so bad that the new part of the company could not generate operating cash flow, which is unlikely, at least so soon).
   - Operating cash flows should show the short or medium term benefits. If these don’t exist, there is some doubt about claims of longer-term benefits arising from assets such as goodwill.
   - If there is divergence between the accrual (economic) measures and the cash flow measures, it can be asked which of the two measures is the more valid. This goes back to the earlier discussion of the value of the acquisition – if there is economic value, then accrual figures should show it by capitalizing such assets as goodwill and showing the effects of the largely non-cash acquisition, but if there is no economic value, it would be inappropriate to create such assets on the balance sheet.

5. Paying for an acquisition.
   - Such an acquisition is a buyer-seller deal just like buying a car or a DVD player. Both buyer and seller have to be satisfied.
   - Using shares avoids the debt, but the seller has to feel that the shares provided have value, which can be hard in a falling stock market or in the case of a buyer that is struggling and is trying to buy to reduce competition.
   - Providing all or partial cash that has been borrowed will work well for the present shareholders (of Pfizer) because they avoid watering their shares down with a lot of other new owners (the former Pharmacia shareholders), and because if the borrowing represents good leverage (to be examined in Chapter 10), the present owners can keep the extra income generated over the cost of borrowing rather than sharing that income with new owners.
   - Also, lately interest rates have fallen dramatically, so as long as Pfizer will not be made too risky by the extra borrowing, borrowed funds can be quite cheap, and may be less costly to the present owners than the cost of sharing profits with Pharmacia shareholders (this is the leverage point stated a little differently).
Solution Outline for Case 9B

This case has no requirement and some whimsy, so the instructor can take it wherever suits the course. It focuses on accounting for debt and equity (Chapter 9) but brings in issues from earlier in the course also.

Here are some issues raised by the case, more or less in the order they come up. These ideas are suggested to help the instructor deal with what might be a quite wide-ranging discussion. To focus the discussion or specify preparation by students, some of these points could be wrapped into topic areas such as the meaning of “liabilities” or the role of judgments and estimates in accrual accounting.

1. Might be useful to mention that many professors act as expert witnesses in court cases. It is one of the more interesting experiences but can be harrowing under cross-examination.

2. Can debt-equity accounting harm investors? If equity is too large (and/or debt is too small), the balance sheet would give misleading information about risk – showing it as smaller than it is, and perhaps leading people to pay more than they should for shares, or leading management to undertake more risky investments than appropriate. If equity is too small (and/or debt is too large), the company would seem more risky than it is and might have to pay higher interest rates than it should, reducing income and dividends and reducing the share value. In either case, the shareholders could be hurt.

3. GAAP are guidelines rather than laws, and as the Continental Vending case exemplified, it should be more important to report fairly rather than “blindly” follow GAAP. However, litigation and oversight by regulators, both of which tend to look to the letter of the accounting rules, have over the years tended to cement GAAP into place, especially in the U.S. American GAAP is usually described as more rule-oriented and less judgmental than Canadian or British GAAP.

4. Often not so clear what the distinction between debt and equity is, so accounting’s separation of the two may sometimes be rather arbitrary (see section 9.5).

5. There has been attention to accrual accounting’s many estimates and judgments throughout the textbook. See sections 9.2 and 9.3 on short and long-term accruals. Runciman’s pensions accounting example is a good one in this regard – we probably don’t and never will know the exact cost of pensions, but every year we do our best to estimate it according to what we know at the time.

6. Runciman’s suggestion that some sort of “intent” to convert shares to debt meant that the shares should be shown as equity violates GAAP. It also violates the transactional basis of accounting because the conversions hadn’t happened yet, even if Runciman thought such conversions would be logical.

7. Following Runciman’s logic, it might also be logical not to show the current portion of long-term debt that the company plans to refinance, but this brings management intention into the accounting numbers and makes working capital look better. As with the share conversions, unless the deal has been struck to refinance, changing the balance sheet to show the hope of doing so would strike some people as misleading. (It does happen, however, and therefore there is some pressure from Canada’s standard-setters to remove intention from consideration. This would mean that even regular “rolling” bank financing would be shown as current because it is officially short-term even if the company intends to keep rolling it over.)
8. Runciman does seem a bit inconsistent in supporting 6 but not 7.

9. Accounting for the Robinson investment has not followed GAAP. Robinson should have been consolidated, as Runciman said, and therefore its debt would have been added into the parent company’s debt.

10. If Robinson were consolidated, there may not have been any need to disclose the parent company’s contingent liability for the guarantee, since the whole debt would be in the consolidated balance sheet. However, it might still be useful to disclose such arrangements because the parent and Robinson are separate companies and ordinarily the shareholders of the parent company would not be responsible for the debts of subsidiaries – their losses would be limited to the parent’s share investment in the subsidiaries, but here their potential losses are not so limited.

11. Runciman’s objection to the lack of consolidation should have been limited to the balance sheet effects. Since equity accounting was used, the effects on the income statement would have been exactly the same as if Robinson had been consolidated. (This point goes a bit beyond the textbook but can be explained by noting that the parent’s share of the subsidiary’s income or loss is taken into parent’s income under the equity basis, while under consolidation, the whole of the subsidiary’s income or loss is taken in but then the minority’s share of that is subtracted, leaving the net effect on income the same in both cases.)

12. Runciman’s point about the misleading asset from Dustin is valid. These sort of effects of not including all the story in the parent’s financial statements are what got Enron into trouble.

13. The point about poor revenue/expense recognition is valid.

14. The discussion about what to do to report the stock options illustrates one of the main problems with proposals to measure their value in the income statement – that value is hypothetical. See the discussion in section 9.5.

15. The discussion of accounting for revenue-expense swaps illustrates what can happen when analysts focus on just part of the financial statements (e.g. the revenue) rather than the net income. Here, Runciman’s points about the misleading effects of the accounting used are pertinent (and have been found in some research on such swap arrangements). Such swaps are a lot less common than they were in the go-go high-tech days of the late 90’s, but still they illustrate a problem when management’s subjectivity is allowed to affect the financial statements too much. It takes us almost full circle back to the debt-equity and management intention points earlier on in the case.