

Chapter 1

Conceptual and Case Analysis Frameworks for Financial Reporting

A brief description of the major points covered in each case and problem.

CASES

Case 1-1

Students are asked to determine the impact of adopting the future tax method on key ratios and to provide supporting arguments for the two different methods of accounting for income taxes.

Case 1-2 (adapted from a case prepared by Peter Secord, Saint Mary's University)

In this real-life case, students are asked to discuss the merits of historical costs vs. replacement costs. Actual note disclosure from a company's financial statements is provided as background material.

Case 1-3 (adapted from a case prepared by Peter Secord, Saint Mary's University)

A Canadian company has just acquired a noncontrolling interest in a U.S. public company. It must decide whether to use IFRS or U.S. GAAP for the U.S. subsidiary. Financial statement information is provided under IFRS and U.S. GAAP. The reasons for some of the differences in numbers must be explained and an opinion provided as to which method best reflects economic reality.

Case 1-4

This case concerns a private company that wants to know the impact of transitioning from ASPE to IFRS will have on its financials. Analysis and recommendations are required for accounting issues related to leases, inventory, intangible assets and goodwill impairment.

Case 1-5

This case is a mid-sized company that is publicly traded but whose management is entertaining a bid from a venture capital firm to take them private. Accounting issues need to be considered to determine their impact on the financial position of the company.

PROBLEMS

Problem 1-1 (20 min.)

A short problem to determine the inputs for, calculate, and interpret three key ratios for three years and also to show the DuPont decomposition.

Problem 1-2 (20 min.)

A short problem to use horizontal and vertical analysis to identify unusual trends in financial performance over two years.

Problem 1-3 (30 min.)

A single asset is acquired. Students are asked to prepare and compare financial statement numbers during the life of the asset using both a historical cost and a current value model.

Problem 1-4 (40 min.)

Financial statements for two companies, Lowes and Home Depot, are provided. Students are required to perform common-size analysis of both the income statement and the balance sheet

Problem 1-5 (30 min.)

A private company plans to convert from IFRS to ASPE and wants to know the impact on three key ratios if it converts from IFRS to ASPE for impairment losses, convertible bonds, and income taxes.

Problem 1-6 (40 min.)

A private company plans to convert to IFRS but has an objective to minimize the impact on net income. Also, a reconciliation to net income is required from IFRS to ASPE.

Problem 1-7 (40 min.)

A private company is considering converting to IFRS. It wants to know the impact on three key ratios if it converts from ASPE to IFRS for impaired loans, capitalization of interest, and actuarial losses.

Problem 1-8 (50 min.)

While taking the role of a financial analyst, the student uses vertical and horizontal analysis and ratios to analyze and interpret the profitability, solvency, and liquidity of a private company.

Problem 1-9 (50 min.)

A private company plans to convert to IFRS and go public within five years. It wants to know the impact on net income and shareholders' equity if it converts from ASPE to IFRS for impaired loans, interest costs, actuarial gains, a compound financial instrument, and income taxes.

SOLUTIONS TO REVIEW QUESTIONS

1. The Conceptual Framework is a set of comprehensive concepts for financial reporting that describe the objectives of financial reporting. The framework has two objectives: To assist Standards setters to develop Standards that are based on consistent concepts or principles, and to assist preparers of financial statements in developing consistent accounting policies when no particular Standard applies to a particular transaction or when a Standard gives a choice between alternatives.
2. There are times when external users may want financial reports that do not follow GAAP. For example, users may need financial statements using non-GAAP accounting policies required for legislative or regulatory purposes, or for contract compliance. A prospective lender may want to receive a balance sheet with assets reported at fair value rather than historical cost. Accountants have the skills and abilities to provide financial information in a variety of formats or using a variety of accounting policies. When the financial statements use non-GAAP accounting policies, the accounting policies must be disclosed in the notes to the financial statements. The accountant's report would refer to these accounting policies.
3. The three main areas where judgment needs to be applied are as follows:
 - Choosing accounting policies that are appropriate for the company's situation
 - Making estimates to accurately reflect the company's financial position and results of operations
 - Deciding what to disclose and how to disclose it in the notes to the financial statements.
4. The GAAP-based financial statements are prepared primarily for the benefit of external users. The financial statements provide a summary of the financial position and results of operations for the company. Management has access to the detailed information available within the company. Therefore, the formal financial statements should give priority to the needs of the external users.
5. The main reason the Accounting Standards Board decided to create a separate section of the CPA Canada Handbook for private enterprises was to address the cost/benefit discrepancy with respect to smaller private companies' ability to comply with GAAP. GAAP has become

increasingly complex and for smaller private enterprises this often means that the cost of complying with such requirements outweighs the benefit received from compliance. In 2002, the AcSB adopted differential reporting, which allowed private enterprises choices with respect to certain complex accounting standards (e.g., the option to use the cost method for investments that would otherwise require the equity method). In 2009, the AcSB decided to create a self-contained set of standards for private enterprises. These standards were effective for fiscal periods beginning on or after January 1, 2011.

6. There are a few reasons why a private company would want to comply with IFRS even though it is not required to do so. It may have plans to become publicly listed at some point in the future and will then be required to comply with IFRS. In this case it would make sense to prepare IFRS-compliant statements in anticipation of the public transaction since the company would have to provide multiple years of comparative financial statements that comply with IFRS. A private company may have users of their financial statements that find IFRS statements more useful for their purposes (e.g., creditors, customers, partners, and other stakeholders that may receive the company's financial statements). Given the global economy and the increased number of countries that have converted to IFRS, this is more likely than it once might have been.
7. The following financial statement items could have different account balances under ASPE as compared to IFRS: impaired loans, property, plant, and equipment, development costs, post-employment benefits, income taxes, compound financial instruments, preferred shares, and convertible bonds.
8. If a company switched from ASPE to IFRS, the debt-to-equity ratio would likely change for all items in Exhibit 1.1 other than dividends.
9. The return on assets and the return on equity are typically used to assess profitability. The current and quick ratios are typically used to assess liquidity. The debt-to-equity ratio is typically used to assess solvency.
10. If XYZ Co. had capitalized rather than expensed the development costs in Year 1, the company's key ratios would change as follows:
 - the current ratio would increase if the development costs were classified as a current asset because current assets would increase, and current liabilities would remain the same; the current ratio would not change if the development costs were classified as a noncurrent asset because both current assets and current liabilities would remain the same;
 - the debt-to-equity ratio would decrease because debt would remain the same and equity would increase;

- the return on equity would increase because net income and equity would increase by the same dollar amount, but net income would be a higher percentage of equity after the change.

11. The six steps of the case framework are as follows:

- Determine Your Role and Requirements
- Identify Users and Their Needs, Given the Case Environment
- Identify and Rank Issues
- Identify Viable Alternatives for Each Major Issue
- Analyze Alternatives Using Criteria for Resolving
- Communicate Practical Recommendations/Conclusions to Users

12. The report recipient is the direct recipient of your report or memo; e.g., the partner who asked you to prepare the memo. The primary users are the users who will be affected by the actions taken as a result of your recommendations; e.g., bankers and shareholders who will receive the financial statements. The primary users should be given priority in financial reporting because they are primary recipients of the financial statements; they are directly affected by the financial statements. If they did not want to receive the financial statements, we would not be preparing them and would not have to write a memo to the partner with respect to the financial statements.

13. The biggest factor to be used when ranking the importance of issues to be resolved is the materiality of the item. If one problem involves a \$10,000 item and another problem involves a \$10 million item, then the \$10 million item likely is the most important item. After that, issues are typically ranked in the following order of priority:

- controversial or highly contentious items
- items with errors
- complex items

14. The final case report should contain your recommendations along with the analysis and arguments supporting your recommendations. It does not need to discuss the alternatives for each issue unless the issue was very contentious. If in the analysis stage, you determined that there was clearly a right answer for a problem, then your report would provide only the recommendation with the supporting arguments. If two or more alternatives were nearly equal in benefits, then your final report could present the arguments for both alternatives along with your recommendation as to the best option in this contentious situation.

SOLUTIONS TO CASES

Case 1-1 [IFRS: The conceptual framework for financial reporting: chapter 3]

To: CEO

From: CPA

Re: New Accounting Policy for Income Taxes

As requested, I have analyzed the impact of adopting the future income tax method on the key ratios and used basic principles to provide arguments for each of the two methods of accounting for income taxes.

Exhibit I shows the calculation of the three key ratios for Year 10 under the two methods of accounting for income taxes. The current ratio does not change since the future taxes are all presented as noncurrent items. Although the liquidity position remains unchanged, the ratio of 1.6 is not very strong to begin with. Many investors would like to see a current ratio around 2. The debt-to-equity ratio increases from 2.78 to 3.14. This indicates that the ability of the company to pay its obligations has worsened and is getting to be quite substantial. This will be viewed negatively by potential investors and creditors. The return on shareholders' equity has increased from 16.67 percent to 17.27 percent when the tax paid to CRA was removed from tax expense because it did not match to the income earned during the year. The higher return is a better reflection of the performance of the entity. This will be viewed positively by potential investors and creditors.

The decision on whether to adopt the future income tax method should be made based on a cost-benefit assessment. The future tax method may better reflect the financial position of the company because it includes taxes that will eventually have to be paid. However, there are many judgments involved with these calculations and the values may not be reliable enough to convince users to take them seriously. The calculations are complex and are not fully understood by preparers and users. Furthermore, the future taxes are not discounted and therefore overstate the true cost of these liabilities in today's dollars. As such, many users do not include these future taxes as part of their assessment of the obligations of the entity. Since private entities do not have to use the future tax method, I recommend that we continue with the taxes payable method until we have decided to go public and would then be required to use the future income tax method.

Exhibit I

		Current Taxes		Future Taxes	
		Method		Method	
Current ratio	<u>Current assets</u>	<u>400</u>	1.60	<u>400</u>	1.60
	Current liabilities	250		250	
Debt-to-equity	<u>Debt</u>	<u>250 + 2,250</u>	2.78	<u>250 + 2,250 + 90 - 123.14</u>	
	Shareholders' Equity	100 + 800		100 + 800 - 90 + 12	
Return on equity	<u>Net income</u>	<u>150</u>	16.67%	<u>150 - 20 + 12</u>	17.27%
	Shareholders' equity	100 + 800		100 + 800 - 90 + 12	

Case 1-2 [IFRS: The conceptual framework for financial reporting: chapter 3]

(a)

When we refer to “present fairly” in the preparation of financial statements, we generally qualify the statement (as the auditors here have): “in accordance with generally accepted accounting principles.” That is, fair presentation has a contextual, rather than an absolute, meaning. For any presentation to be fair to the user, the basis of presentation must be known and understood, but does not necessarily have to follow any one particular model.

Financial statements may be considered to “present fairly” whether prepared in accordance with the historical cost convention, replacement cost, general price-level-adjusted model, or net realizable value. The important issue is that the model employed is known, understood, and consistently followed.

Arguably, fair value accounting is the model most likely to provide fair presentation, especially where asset values are volatile, as historical costs become rapidly out of date. For many long-established companies, historical costs for some assets are significantly out of date and of no value in support of managerial decisions. In managerial accounting, we have long recognized that the relevant costs are current costs. In some European countries, an approach to financial reporting has developed that adopts more of a managerial approach and seeks to provide the

most relevant information for decision-making. As a result, many companies follow alternatives to historical cost, generally fair values, in the financial statements.

There are risks, however, that arise from the adoption of alternatives to historical cost. Some of these are the same risks that arise from the historical cost model in that the recorded amount may soon be out of date. Prices may go up or down, and even “fair values” of prior periods may display no relationship to fair values at the present date. Cost is always cost in a particular context and a cost determined for a particular context or decision may not be valid for a different context or decision and the user should be aware of this.

The question of objective determination also arises. The reported values in fair value-based financial statements are not directly supportable by arms’ length transactions. This introduces the risk of an important (and potentially deliberate) misstatement. This is the principal risk arising from fair value accounting. It leads many countries to have highly detailed rules for the preparation, audit, and publication of financial statement asset values under fair values.

(b)

Students will provide a wide range of responses to this question; at this stage (unless they have been provided with supplementary material or have background from other courses) responses will just scratch the surface. The following note may be helpful:

Historical cost accounting has the advantage that it is verifiable, and therefore tends to be more reliable and freer from bias than fair value accounting. Historical cost amounts are based on objective information and are more likely to have the “paper trail” of an actual transaction that provides support. Historical costs, however, are sunk costs and have limited value in support of decisions. They are particularly deficient if a long time has passed since the transaction occurred, or if there have been significant technical developments. These are serious difficulties that the accounting profession has tried to address through a variety of different mechanisms, but no other method has become universally acceptable as an answer to the problem and so historical cost accounting persists, largely because of inertia, and because no better model has emerged.

Fair value accounting has the advantage of enhanced relevance because the values included have been determined at the current time, rather than at some uncertain past date. These amounts may therefore be better for investment decisions than historical costs. However, fair

values may be potentially deficient in that they might not be objectively determined and lack reliability. At the worst, they could contain bias to support a particular management policy or decision. In other cases, they could be guesses or otherwise based on invalid information. Also, the use of fair value in financial statements in no manner makes the financial statements more “accurate,” although (if the amounts are carefully and objectively determined) there may be advantages in the fairness of presentation and therefore the relevance of financial statement amounts.

With respect to income measurement, in a period of inflation, historical cost accounting will result in an overstatement of income. Income is overstated, as a portion of the reported profits must be reinvested in the business to maintain the productive capacity and not all profits are available for distribution. If all profits are distributed, the business will not have the capacity to replace the items that have been consumed in the process of earning income. Fair value accounting will alleviate this problem by charging to expense the fair value of all items consumed. With fair value charged to expense, the income remaining is a true income, potentially available for distribution without impairment of the productive capacity of the enterprise.

A further important point is that both the preparer and the user of financial statements should understand the basis of preparation of the statements, and the strengths and weaknesses of the approach employed.

(c)

It is true that financial statements are complicated by accounting methods, such as the method of accounting for deferred income taxes, foreign currency translation, and so on. However, some of these complexities cannot be avoided. The business environment and business transactions are themselves more complex. Since the financial statements try to reflect these business events, it is inevitable that the financial statements will be more complex. Thus, it is not accounting methods per se that make financial statements difficult to understand.

Financial statements are not directed at the average person, so they cannot be criticized on the grounds that they are beyond the comprehension of the “average person.” Instead, they are intended for users with a reasonable understanding of financial statements. The question then becomes should additional explanations be provided for users who have a reasonable

understanding of the financial statements? The answer depends on what type of information the “explanations” will contain.

Additional explanations might be of three types:

- They could provide more detail on information that is already contained in financial statements. For example, certain dollar amounts reported in the financial statements might be broken down into more detail, or the significance of certain amounts might be discussed;
- They could make information that is currently in the financial statements easier to understand by explaining technical accounting terms and concepts used in the statements; or
- They could provide entirely new information not included in financial statements that might help users better understand the significance of the information that appears in the financial statements.

In all three cases, the information provided might concern the future or the past. It is important to note that for publicly accountable enterprises, there is already a considerable amount of supplemental information provided in a company’s MD&A. This document provides supplementary discussion of financial results and in many cases explanations of accounting treatments used in a company’s financial statements for the period. Further, it is important to note that at some point additional information may “overload” the user. Too much information may achieve the undesired result of making financial statements more difficult to understand. This must be taken into account when considering supplemental information and explanations.

CASE 1-3

Case Note

Ajax Communications presents the classic case of the conflict among the accounting standards that are in force in different jurisdictions. Each set of requirements can be seen to be correct, although dramatically different amounts may be presented on a variety of dimensions. Certainly, the standard-setters (and, generally, the accounting practitioners) of each jurisdiction believe that the requirements in place locally are the best requirements available, in that they present results that are consistent with the prevailing views on a fair presentation of both financial performance and financial position. Although the conceptual frameworks are very similar under IFRS and U.S. GAAP, the actual requirements in place are quite different in some

areas, and there is no guidance in choosing the right set of accounting standards to base decisions upon. Harmonization efforts are ongoing to resolve these differences, yet regardless of the changes in accounting standards, there will remain differences in interpretation of the requirements and differences in the practices that are in place.

Responses to specific questions:

(a)

Items throughout the income statement differ between the two sets of financial statements, as do all the aspects of the balance sheet presented. Although it is not unusual to have some differences between U.S. GAAP and IFRS, the magnitude of the differences would not usually be of the size in the Waqaas case. As a start, McCurdy may be able to determine where some of the difference arises by examining the summary of significant accounting policies included with the financial statements. This source will not identify all the accounting policies in place. More detailed knowledge of the accounting policies in place could come from the specific notes to the financial statements. In addition, he should search for publications or web sites that discuss differences in accounting policies among countries. A website provided by Deloitte (www.iasplus.com) could also provide useful information.

(b)

- Why are operating income and net income higher under IFRS for the same period?
- What is the nature of the accounting policy differences that have led to such dramatic differences in asset valuation between the two sets of financial statements? (Two possible reasons: (1) consolidation of some investments under IFRS that would not be consolidated in the U.S. financial statements; this might explain the differences in the investments account, and arises because there are different requirements for the determination of when an investment is classified as a subsidiary and consolidated; and (2) the use of LIFO in the U.S. and FIFO under IFRS might produce different results if there have been major changes in inventory costs during the year.)
- Given the higher asset values under IFRS, the company may be using the revaluation option under IFRS.
- What items, if any, have been deferred and are being amortized under IFRS that are directly expensed in the U.S. statements? (R&D comes to mind) Does this account for the difference in intangibles?

- A variety of other specific points could be raised, including, for example, policies associated with tax allocation.

(c)

Without knowing what has caused the difference, it is hard to determine which GAAP best reflects economic reality. Although the differences represent a dilemma to the Board of Directors in this case, neither set of financial statements may be said to be unequivocally superior to the other for the purpose of making investment decisions. This is the general dilemma of international comparisons, and a principal reason why accounting harmonization is so important. [IFRS: The conceptual framework for financial reporting: chapter 3]

CASE 1-4

Memorandum

To: CFO

From: You

Re: Greenbrook Incorporated Financial Reporting Issues on Conversion from ASPE to IFRS.

Greenbrook Incorporated is a private Canadian corporation that has been using ASPE. The company wants to obtain debt financing to support expansion into Ontario. The company is considering transitioning to IFRS as a basis for the preparation of its financial statements. If IFRS-based statements present the company in a better light, then the switch to IFRS will be recommended. The following represents the statement of financial position, prepared in accordance with IFRS as well as accompanying notes justifying the adjustments recommended.

Greenbrook Incorporated Statement of Financial Position At December 31, Year5

Assets

Cash	\$125,000
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Accounts receivable	115,000
Inventory (Note 1)	210,000
Right-of-use asset (Note 2)	54,465
Accumulated depreciation of right-of-use asset (Note 2)	(18,155)
Property, plant, and equipment	420,000
Accumulated depreciation of property, plant, and equipment	(160,000)
Intangible asset (Note 3)	80,000
Goodwill (Note 5)	<u>45,000</u>
Total assets	<u>\$871,310</u>

Liabilities

Accounts payable	\$120,000
Bank loan	200,000
Lease liability on right-of-use asset (Note 2)	37,188
Long-term notes payable	40,000
Share capital	200,000
Retained earnings	<u>274,122*</u>
Total liabilities and shareholders' equity	<u>\$871,310</u>

$$*200,000 + 10,000 - 18,155 - 2,723 + 20,000 + 80,000 - 15,000 = 274,122$$

In preparing the financial statements using IFRS, I have noted the following issues that require corrections.

1. Inventory will increase by \$10,000 to reflect the IFRS value of \$210,000. This increase in inventory will lead to a decrease in cost of goods sold of an equal amount and therefore an increase in equity by \$10,000.
2. The company entered into a lease agreement that it classified as an operating lease. The company has classified the lease as an operating lease because a less than substantial amount of the risks and rewards incidental to ownership are transferred to Greenbrook. Under IFRS 16, most leases are classified as finance leases requiring that the lessor recognize a right-of-use asset as well as a lease liability. Therefore, a right-of-use asset amounting to \$54,465 will be recognized in the asset section of the statement of financial position. In addition, depreciation of the right-of-use asset in the amount of \$18,155

(\$54,465/3) will be recognized in the asset and equity sections of the statement of financial position. On the liability side of the balance sheet, the liability of \$54,465 will be recognized less the principal repayment of \$17,277. In addition, the interest on the lease liability in the amount of \$2,723 ($54,465 \times 5\%$), will be deducted from income. The \$20,000 lease payment was deducted as an expense under ASPE and needs to be added to equity.

3. The intangible was internally developed and since this has passed the development phase, this cost will be capitalized according to IFRS. ASPE provides the option to either expense or capitalize development costs while IFRS requires that these be capitalized. Capitalizing the cost will also increase equity by \$80,000.
4. The goodwill balance will be reduced by the goodwill impairment of \$15,000. This will also be deducted from income to recognize the impairment.

	ASPE	IFRS
<u>Liquidity ratio: Current ratio</u>		
<u>Current assets</u>	<u>440,000</u> = 1.38	<u>450,000</u> = 1.41
Current liabilities	320,000	320,000
<u>Solvency: Debt-to-equity ratio</u>		
<u>Total liabilities</u>	<u>360,000</u> = 0.9	<u>397,188</u> = 0.84
Total equity	400,000	475,000

The current ratio is better under IFRS than it is under ASPE. This is due to the increased value for ending inventory under IFRS.

The debt-to-equity ratio is also better under IFRS than under ASPE. The ratio under IFRS is 0.84 vs. 0.9 under ASPE. This means that the company has an increased ratio of assets financed with equity under IFRS. This is evidence of a less risky operation.

Overall, IFRS presents a slightly better state of affairs for Greenbrook Incorporated than ASPE.

CASE 1-5

Memorandum

To: Audit Manager

From: Auditor

Re: Energyx Corporation – Accounting Issues

Energyx is a mid-size energy retailer in Ontario that reports its financial statements using IFRS. As part of a due diligence review of its operations, I identified the following issues. While there does not appear to be a stated motive, it appears that some of the treatments of the items in question do not conform to IFRS. In the paragraphs that follow, a discussion of the treatment of the items is provided.

1. Software capitalization:

The capitalization of software costs is generally accepted if the software will bring future economic benefits. Energyx Corporation's capitalization of the new software costs appears inappropriate. According to IAS 38, only those costs that are directly implicated in the development of the new software (intangible) should be capitalized. This includes the cost of the new software, the cost of implementation, and the direct employee salaries [IAS 38.66]. According to IAS 38, preliminary costs and costs involved in evaluating options to determine an acceptable solution should be expensed. Therefore, those such costs incurred by Energyx, amounting to \$140,000, need to be written off and not capitalized [IAS 38.55-56]. In addition, costs incurred for training [IAS 38.67] and the monthly support fee [IAS 38.29] are not to be capitalized. These are to be written off.

Therefore, the only costs that should be capitalized are the cost of the new software (\$200,000), the implementation work (\$160,000), and the employee salaries (\$90,000), which total \$450,000. The balance of \$540,000 should be written off as an expense.

2. Revenue Recognition:

The recognition of product revenue without customer sign-off deviates from Energyx's standard practice and could lead to overstated revenue [IAS 15.31]. The company should adhere to its established policy to ensure accurate revenue reporting. Thus, the \$800,000 that was recognized in Year 5 should be removed and recognized in Year 6, which is where it belongs based on when the customer signed the acceptance of the installation, marking the completion of the earnings process.

3. Investment recognition:

The acquisition of \$300,000 worth of debentures should be recognized at amortized cost based on IFRS 9.4.1.2. The objective of holding the asset is to collect contractual cash flows and these cash flows are solely payments of principal and interest on the outstanding debt.

Reclassification is only allowed if there has been a change in Energyx's business model.

Changing the designation from an amortized cost investment to a fair value investment is not consistent with IFRS [IFRS 9: B4.4.3]. As a result, the unrealized gain of \$380,000 should not be recognized in income.

4. Accounts receivable:

The aging analysis of accounts receivable shows a \$1,000,000 receivable that is over 120 days. According to Energyx's policy, a loss allowance of 50% (\$500,000) should be recognized for this receivable. IFRS9.5.5.1 says an entity shall recognize a loss allowance for expected losses on financial assets.

In summary, net income should be reduced by \$2,220,000, which means pretax earnings is actually \$180,000.

SOLUTIONS TO PROBLEMS

Problem 1-1

(a)

To solve this, first determine Total assets as Total liabilities + Total shareholders' equity.

		Year 5 (in \$000s)	Year 6 (in \$000s)	Year 7 (in \$000s)
ROE	<u>Net income</u> Equity	$\frac{68}{300} = 0.227$	$\frac{70}{320} = 0.219$	$\frac{71}{380} = 0.187$

(b)

Little Rock's profitability, as measured by its ROE, is declining over the period. In Year 5, the ROE was 22.7% and it declined in Year 6 to 21.9% and to 18.7% in Year 7.

(c)

The DuPont decomposition breaks down a firm's ROE into its Return on Assets (ROA) and its financial leverage (Assets/Equity). The ROA can be further decomposed into profit margin and asset turnover. Little Rock's PM is 0.113 in Year 6 and 0.102 in Year 7. This suggests that Little Rock is less profitable in Year 7 relative to Year 6. Using the AT ratio, we examine how Little Rock's assets generate sales. Again, we see a declining trend. AT is 1.348 in Year 6 and this falls to 1.241 in Year 7. The financial leverage reveals that Little Rock is depending more on debt to fund its activities. FL is 1.438 in Year 6 and 1.474 in Year 7. Overall, this shows a worsening condition for Little Rock's financial situation.

		Year 6 (in \$000s)	Year 7 (in \$000s)
PM	<u>Net income</u> Sales	$\frac{70}{620} = 0.113$	$\frac{71}{695} = 0.102$
AT	<u>Sales</u> Assets	$\frac{620}{460} = 1.348$	$\frac{695}{560} = 1.241$
FL	<u>Assets</u> Equity	$\frac{460}{320} = 1.438$	$\frac{560}{380} = 1.474$
ROE	PM x AT x FL	$0.113 \times 1.348 \times 1.438 = 0.219$	$0.102 \times 1.241 \times 1.474 = 0.187$

(d)

Little Rock's liquidity can be measured using the current ratio. To determine the current ratio, first, we need to determine what the current assets are.

Current assets = Total assets – Long-term assets (Year 6 is \$80,000; Year 7 is \$65,000)

$$\text{Liquidity Year 6} = \frac{\text{Current assets}}{\text{Current liabilities}} = 80,000/38,000 = 2.11$$

$$\text{Liquidity Year 7} = \frac{\text{Current assets}}{\text{Current liabilities}} = 65,000/55,000 = 1.18$$

Liquidity is worsening for Little Rock between Year 6 and Year 7. In Year 7, current assets are just slightly above current liabilities.

Solvency is measured by total debt divided by shareholders' equity.

$$\text{Solvency Year 6} = \frac{\text{Total debt}}{\text{Shareholders' equity}} = 140,000/320,000 = 0.44$$

$$\text{Solvency Year 7} = \frac{\text{Total debt}}{\text{Shareholders' equity}} = 180,000/380,000 = 0.47$$

The results show that solvency is worsening. A lower solvency ratio is better as it shows that Little Rock is relying less on debt than equity. A higher solvency ratio indicates that the company is bearing more debt, which may increase its interest expense and reduce its profitability.

Problem 1-2

(a) (i)

	Year 6	Year 7
Sales revenue	100	100
Cost of goods sold	54	58
Other expenses	29	21
Net income	17	22
Current assets	30	31
Total assets	100	100
Total liabilities	69	60
Shareholders' equity	31	40

(ii)

	Year 6	Year 7
Sales revenue	100	107
Cost of goods sold	100	116
Other expenses	100	76
Net income	100	133
Current assets	100	108
Total assets	100	105
Total liabilities	100	92
Shareholders' equity	100	135

(b)

The three financial statement items that seem most peculiar relative to expectations are:

1. Other expenses declined when revenue increased and now represent only 21% of sales compared to 29% of sales in Year 6.
2. Total liabilities declined by 8% even though sales increased by 7% and now represent only 60% of total assets compared to 69% in Year 6.
3. Shareholders' equity increased by 35% even though sales only increased by 7% and now represent 40% of total assets compared to only 31% in Year 6.

Problem 1-3

	Historical Cost (ASPE)	Current Value (IAS 16)
Jan 1 /20 Asset cost	19,000,000	19,000,000
Residual value	<u>1,000,000</u>	<u>1,000,000</u>
Depreciable base	18,000,000	18,000,000
Year 2020 Depreciation	<u>900,000</u>	<u>900,000</u>
Dec 31/20 Balance	18,100,000	18,100,000
Year 2021 Depreciation	<u>900,000</u>	<u>900,000</u>
Dec 31/21 Balance	<u>17,200,000</u>	<u>17,200,000</u>
Year 2022 Depreciation	<u>900,000</u>	<u>900,000</u>

Dec 31/22	Balance	<u>16,300,000</u>	<u>16,300,000</u>
Jan 1/2023	Appraisal		18,000,000
	Residual Value		<u>(1,000,000)</u>
	Depreciable base		17,000,000
Year 2023	Depreciation	<u>900,000</u>	<u>1,000,000</u>
Dec 31/23	Balance	<u>15,400,000</u>	<u>16,000,000</u>

(a)		Year 2020	Year 2021	Year 2022	Year 2023
	i. ASPE	900,000	900,000	900,000	900,000
	ii. IAS 16	900,000	900,000	900,000	1,000,000

(b)		Dec 31, 2021	Dec 31, 2022	Dec 31 2023
	1. ASPE	17,200,000	16,300,000	15,400,000
	2. IAS 16	17,200,000	16,300,000	16,000,000

(c)	ASPE	Total depreciation over 20 years		18,000,000
	IAS 16	Total depreciation over 20 years		
		Years 2020-2022 (3 years)	2,700,000	
		Next 18 years	<u>17,000,000</u>	<u>19,700,000</u>
	Depreciation	IAS 16 > ASPE		<u>1,700,000</u>

Profit ASPE > IAS

There would be no difference in shareholders' equity at the end of 20 years.

During the first three years the reduction in shareholders' equity is the same under the two alternatives (3 x 900,000 = 2,700,000)

During the last 17 years

depreciation IAS 16 > ASPE	(17 x 100,000)	1,700,000
Offset by appraisal surplus through OCI		<u>1,700,000</u>
Difference in shareholders' equity		<u>0</u>

Problem 1-4

a. Common-size income statement using vertical analysis

	Lowes 2023	Home Depot 2023
Sales	100	100
Cost of sales	67%	67%
Gross profit	33%	33%
Selling general and admin	18%	17%
Depreciation	2%	2%
Interest expense	2%	1%
Provision for income taxes	3%	3%
Net earnings	9%	10%

It appears that both companies are very similar. Despite the fact that Home Depot has more sales revenue than Lowes, the proportion of expenses appears to be similar across both companies. The notable difference is in Selling general and admin expenses where this item accounts for 18% of sales in Lowes and only 17% in Home Depot. Interest expense is also 1% higher for The Lowes Company, Inc. relative to Home Depot. This is reflected in net income which is 1% higher in Home Depot than in Lowes.

b. Common-size balance sheet using vertical analysis

	Lowes 2023	Home Depot 2023
Cash	2%	5%
Accounts Receivable	0	4%
Inventory	40%	27%
Other Current assets	2%	2%
PPE	42%	34%
Operating lease	9%	10%
Goodwill	0	11%
Long-term investments	1%	0
Deferred income taxes - net	1%	0

Other long-term assets	2%	6%
Current liabilities	37%	29%
Long term liabilities	99%	70%
Equity	-36%	1%

Like (a) above, both companies have a similar proportion of balance sheet items to total assets with few exceptions. Home Depot has goodwill on its financial statements while Lowes, does not. In addition, Lowes has a higher proportion of inventory, PPE, Long-term investments and current and long-term liabilities. Of particular note is that Equity is negative for Lowes while it is positive for Home depot.

c.

	2023 = Lowes	2022 - Lowes	2023 - HD	2022 - HD
ROE = net income/equity	7,726/(15,050) = -0.51	6,437/(14,254) = 0.45	15,143/1,044 =14.50	17,105/1,562 =10.95
Profit margin	7,726/86,377 = 0.09	6,437/97,059 = 0.07	15,143/152,669 =0.10	17,105/157,403 =0.11
Asset turnover	86,377/41,795 = 2.07	97,059/43,708 = 2.22	152,669/76,530 =1.99	157,403/76,445 =2.06
Financial leverage	41,975/(15,050) = -2.79	43,708/(14,254) = -3.07	76,530/1,044 =73.30	76,445/1,562 =48.94

Lowes shows marginal improvement in profitability while Home Depot's profitability declined marginally. Lowes appears to be using its assets more efficiently than Home Depot (2.07 vs 1.99) but the asset turnover for both companies declined between 2022 and 2023. Looking at the financial leverage ratio, both companies are using debt to finance some asset purchase. However Lowes' financial leverage is negative suggesting that it is earning less on the asset than the cost of borrowing the funds. Thus this over-reliance on debt relative to equity makes it a riskier company than Home Depot.

Problem 1-5

(a) Maurice Ltd. Reconciliation from IFRS to ASPE:

Description	Net	Current	Current	Debt	Equity
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	<i>Income</i>	<i>Assets</i>	<i>Liabilities</i>		
Per IFRS	\$4,800	\$15,400	\$12,500	\$27,000	\$23,300
Depreciation expense	310 ^{1a}				310 ^{1b}
Impairment loss and recovery	(585) ^{1c}				(1,785) ^{1d}
Convertible bonds	74 ^{2a}			2,553 ^{2b}	(2,553) ^{2c}
Income taxes	<u>370</u>	<u>0</u>	<u>0</u>	<u>(6,670)</u>	<u>6,670</u>
Per ASPE	<u>\$4,969</u>	<u>\$15,400</u>	<u>\$12,500</u>	<u>\$22,883</u>	<u>\$25,942</u>

		<i>IFRS</i>	<i>ASPE</i>
Current ratio	<u>Current assets</u>	<u>15,400</u> = 1.23	<u>15,400</u> = 1.23
	Current liabilities	12,500	12,500
Debt-to-equity	<u>Debt</u>	<u>27,000</u> = 1.16	<u>22,883</u> = 0.88
	Equity	23,300	25,942
Return on total equity	<u>Net income</u>	<u>4,800</u> = 20.60%	<u>4,969</u> = 19.15%
	Total equity	23,300	25,942

Notes:

1. The recoverable amount under IFRS is the higher of value in use and fair value, which are \$20,700 at the end of Year 5 and \$20,000 at the end of Year 6. Under ASPE, the equipment is written down to fair value if the undiscounted cash flows are less than the carrying amount. An impairment loss can be reversed under IFRS but not under ASPE.

	<i>IFRS</i>		<i>ASPE</i>	
	YR5	YR6	YR5	YR6
Cost of equipment	\$32,125	\$32,125	\$32,125	\$32,125
Accum. depreciation	(6,425)	(7,710)	(6,425)	(7,400)
Accum. impairment losses	<u>(5,000)</u>	<u>(4,415)</u>	<u>(6,200)</u>	<u>(6,200)</u>
Carrying amount on SCFP	<u>\$20,700</u>	<u>\$20,000</u>	<u>\$19,500</u>	<u>\$18,525</u>
Depreciation expense	1,285	1,285	1,285	975*
Impairment loss (recovery)	5,000	(585)	6,200	

* 19,500 / 20 Years = 975

(a) Difference in depreciation expense for Year 6 (1,285 – 975)

310

(b) Difference in accumulated depreciation at end of Year 6 (7,710 – 7,400)	310
(c) Impairment loss recovery for Year 6 under IFRS (5,000 – 4,415)	585
(d) Difference in accumulated impairment loss at end of Year 6 (6,200 – 4,415)	1,785

2. Under ASPE, you can assign the entire proceeds from the convertible bonds to bonds payable or split the total proceeds between bonds payable and conversion option, which is a component of shareholders' equity. Maurice wants to use the simplest method, which would be assigning the entire amount to bonds payable.

	IFRS		ASPE	
	Liability	Equity	Liability	Equity
Issuance of bonds	\$28,300	\$2,700	\$31,000	\$0
Amort of discount – Year 5	73			
Amort of discount – Year 6	<u>74</u>	<u>0</u>	<u>0</u>	<u>0</u>
Carrying amount on SCFP	<u>\$28,447</u>	<u>\$2,700</u>	<u>\$13,000</u>	<u>\$0</u>

(a) Difference in amortization of bond discount for Year 6 (74 - 0)	74
(b) Difference in bond liability at end of Year 6 (31,000 – 28,447)	2,553
(c) Difference in shareholders' equity at end of Year 6 (2,700 – 0 – 73 - 74)	2,553

3. Under ASPE, Maurice would choose the taxes payable method because it is much simpler than the future taxes payable method. Therefore, all the future tax amounts would be eliminated when converting from IFRS to ASPE.

- (b) The current ratio did not change, which means that liquidity remains the same under ASPE. The debt-to-equity ratio decreased, which means that solvency looks better under ASPE. The return on total equity decreased, which makes profitability look worse under ASPE.

Problem 1-6

(a)

(i)	IFRS ¹	ASPE ²
Development costs @ Dec 31, Yr. 2	\$93,240	\$0

¹ $\$518,000 \times .20 - (\$518,000 \times .20)/10 = \$93,240$ – only development costs are capitalized. (IAS 38.57)

² R&D costs are expensed in Year 1 under ASPE to minimize net income.

(ii)	IFRS ³	ASPE ⁴
Equipment @ Dec 31, Yr 2	\$69,750	\$81,600

³ Under IFRS (IAS 36), an asset is impaired at the end of Year 1 if the carrying amount of \$108,800 ($\$136,000 - \$136,000/5$ years) exceeds the higher of assets value in use (discounted cash flows = \$93,000 at Dec 31, Yr. 1) and its FV less costs to dispose (\$90,000). If impaired, the asset is written down to its value in use. The balance at Dec 31, Yr. 2 is therefore determined using the \$93,000 value in use at Dec 31, Yr. 1 less one year of depreciation ($\$93,000/4 = \$23,250$).

⁴ Under ASPE, there is no indicator of impairment if the undiscounted cash flows from its use (\$111,000) are greater than the carrying amount, \$108,800, at Dec 31, Yr. 1. The balance under ASPE at Dec 31, Yr. 2 is therefore \$136,000 less two years of depreciation (\$27,200 per year).

(b)	
Net income Year 2 under IFRS	\$218,000
Less: additional depreciation under ASPE (27,200 - 23,250)	(3,950)
Add: development cost amortization, not recognized under ASPE	<u>10,360</u>
Net income Year 2 under ASPE	<u>\$224,410</u>

S/E Dec 31 Year 2 under IFRS	\$1,980,000
Less: development cost not capitalized under ASPE	(93,240)
additional depreciation under ASPE (27,200 - 23,250)	(3,950)
Add: impairment on equipment not recognized in Year 1 under ASPE	<u>15,800</u>
S/E Dec 31, Year 2 under ASPE	<u>\$1,898,610</u>

Problem 1-7

(a) Becker Ltd. Reconciliation from ASPE to IFRS (in 000s):

Description	Net Income	Current Assets	Current Liabilities	Debt	Equity
Per ASPE	\$1,520	\$7,000	\$5,420	\$12,500	\$11,100
Impaired loans	(14) ¹				(14) ¹
Interest capitalization	40 ²				60 ³
Actuarial loss	<u>117</u> ⁴				<u>0</u> ⁵
Per IFRS	<u>\$1,663</u>	<u>\$7,000</u>	<u>\$5,420</u>	<u>\$12,500</u>	<u>\$11,146</u>

		ASPE	IFRS
Current ratio	<u>Current assets</u>	<u>7,000</u> = 1.29	<u>7,000</u> = 1.29
	Current liabilities	5,420	5,420
Debt-to-equity	<u>Debt</u>	<u>12,500</u> = 1.13	<u>12,500</u> = 1.12
	Equity	11,100	11,146
Return on total equity	<u>Net income</u>	<u>1,520</u> = 13.69%	<u>1,663</u> = 14.92%
	Total equity	11,100	11,146

Notes:

1. The loan receivable is \$474 under ASPE and should be \$460 under IFRS.

2. The interest cost was expensed under ASPE and should be capitalized under IFRS.

(500 x 8% = 40)

3. The interest cost was expensed under ASPE and should be capitalized under IFRS.

(500 x 8% x 1.5 years = 60)

4. The actuarial loss is reported in net income under ASPE and should be reported in OCI under IFRS.

5. Since net income and OCI both end up in shareholders' equity, there is no change to shareholders' equity when converting from ASPE to IFRS.

- (b) The current ratio did not change, which means that liquidity remains the same under IFRS.
 The debt-to-equity ratio decreased, which means that solvency looks better under IFRS.
 The return on total equity increased, which makes profitability look better under IFRS.

Problem 1-8

(a) i)

BALANCE SHEETS

	Year 7	Year 6
<i>Assets</i>		
Cash	1	3
Accounts receivable	24	24
Inventory	38	40
Property, plant, and equipment	37	33
	100	100
<i>Liabilities and Shareholders' Equity</i>		
Accounts payable	24	26
Other accrued liabilities	8	7
Bonds payable	23	24
Common shares	21	22
Retained earnings	24	21
	100	100

INCOME STATEMENT

	Year 7	Year 6
Sales	100	100
Cost of goods sold	70	68
Gross margin	30	32
Depreciation expense	2	2
Other expenses	21	22
Income tax expense	3	3
Net income	4	5

ii)

BALANCE SHEETS

	Year 7	Year 6
<i>Assets</i>		
Cash	33	100
Accounts receivable	103	100
Inventory	103	100
Property, plant, and equipment	118	100
	106	100
<i>Liabilities and Shareholders' Equity</i>		
Accounts payable	97	100
Other accrued liabilities	120	100
Bonds payable	100	100
Common shares	99	100
Retained earnings	127	100
	106	100

INCOME STATEMENT

	Year 7	Year 6
Sales	103	100
Cost of goods sold	106	100
Gross margin	95	100
Depreciation expense	117	100
Other expenses	95	100
Income tax expense	84	100
Net income	92	100

(b)

Since sales increased by 3%, the items directly related to sales would be expected to increase by 3%. However, the horizontal analysis indicates that cost of sales increased by 6%, accounts payable decreased by 3%, and other accrued liabilities increased by 20%. Since equipment increased by 18%, an increase of 17% for depreciation expense appears reasonable. Last, the change in income tax expense is fairly consistent with the change in net income.

(c)		Year 7		Year 6	
Current ratio	<u>Current assets</u>	<u>518</u>	2.00	<u>518</u>	2.04
	Current liabilities	259		254	
Debt-to-equity	<u>Debt</u>	<u>445</u>	1.18	<u>440</u>	1.32
	Equity	376		334	
Return on assets	<u>Net income</u>	<u>75.98</u>	9.25	<u>85.84</u>	11.09
	Assets	821		774	
Return on equity	<u>Net income</u>	<u>75.98</u>	20.21	<u>85.84</u>	25.70
	Shareholders' equity	376		334	

(d)

Since the current ratio decreased, liquidity deteriorated. Since the debt-to-equity ratio went down, solvency improved. Since both the return on assets and return on equity went down, profitability deteriorated.

Problem 1-9

Description	Net income		Shareholders' equity	
	ASPE	IFRS	ASPE	IFRS
Preliminary financial statements	\$416,000	\$416,000	\$3,660,000	\$3,660,000
Loan impairment (#1)	(7,970)	(15,643)	(7,970)	(15,643)
Accrued interest payable (#2)	(32,760)	0	(32,760)	0
Actuarial gains (#3)	104,400	0	104,400	104,400
Equity portion of compound instrument (#4)	0	0	82,000	82,000
Future tax liability (#5)	<u>(56,000)</u>	<u>(56,000)</u>	<u>(372,000)</u>	<u>(372,000)</u>
Revised values	<u>\$423,670</u>	<u>\$344,357</u>	<u>\$3,433,670</u>	<u>\$3,458,757</u>

Notes:

1. Impaired loans – Must determine present value of future cash flows. Must use market interest rate of 9% under ASPE and original interest rate of 11% under IFRS.

2. Interest costs – Can capitalize or expense under ASPE; would expense to minimize ROE. Must capitalize under IFRS.
3. Actuarial gains – Must recognize immediately in net income under ASPE. Must recognize immediately in OCI under IFRS.
4. Compound financial instrument – Can recognize the \$82,000 value of the conversion option as debt or equity under ASPE; would recognize as equity to increase denominator for ROE calculation and thereby reduce ROE. Must recognize as equity under IFRS.
5. Income Tax –Can use taxes payable or future income tax method under ASPE; would use future income tax to reduce net income. Must use future income tax method under IFRS.

Calculations:	ASPE	IFRS
1. Loan receivable		
Carrying amount	\$270,000	\$270,000
Present value of future cash flows at		
9%	<u>256,717</u>	
11%		<u>243,929</u>
Impairment loss before tax	13,283	26,071
Impairment loss after tax (x 0.6)	7,970	15,643
2. Interest costs		
March to September (560,000 x 9% x 7/12)	29,400	29,400
October to December (1,120,000 x 9% x 3/12)	<u>25,200</u>	<u>25,200</u>
Accrued interest expensed	54,600	
Accrued interest capitalized		54,600
After tax expense (x 0.6)	32,760	
3. Actuarial gains		
Recognized immediately in net income	174,000	
Recognized immediately in OCI		174,000
After tax gain (x 0.6)	104,400	104,400
4. Compound financial instrument		
Value of conversion option (1,320,000 – 1,238,000)	82,000	82,000
Not taxable since it does not affect net income		
5. Income tax		
Future income tax expense for Year 5 (372,000 – 316,000)	56,000	56,000

Future income tax expense for all years	372,000	372,000
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