Chapter 4: Implementing Accounting Analysis

- Recasting financial statements into a template that uses standard terminology makes analysis more meaningful.
- Analysing elements of the financial statements for possible distortions allows the analyst to better understand the economic substance of a firm's transactions and its impact on financial performance and financial position.

Recasting Financial Statements

- Balance sheets, income statements and statements of cash flows may be recast to standardise line-item descriptions.
- This increases their usefulness to analysts:
  - Worksheet approach used: expanded accounting equation
  - Firms can vary in the terminology and formats used to report financial results
  - Templates have been designed for each of the four major financial statements to standardise the format and terminology
  - Refer to Tables 4.1, 4.2, 4.3, and 4.4 in the text.
- Lecture Example – Discussion question 1
  - Balance Sheet only
  - See excel file on LMS
  - See Table 4.1 page 95 of the textbook
- To create standardized financials, analyst classifies each line item in the organisation's financial statements using appropriate account name
- Once standardized, analyst can evaluate whether accounting adjustments are needed to correct for any distortions in the financial statements

Accounting Adjustments

- Once financial statements are standardised, then analysts can evaluate whether accounting adjustments are needed to correct for distortion in financial statements (FS).
- Adjustments may be needed due to:
  - Accounting rules do not capture underlying economics of the company
  - Managers use their discretion to distort company performance
  - It is desirable to increase accounting comparability in FS between companies and across time.
- The process for accounting adjustments follows the accounting equation (as presented in Chapter 3).

Standardised Format: balance Sheet

Standard Classification	Typical Line Items	Standard Classification	Typical Line Items
Assets		**Liabilities and Equity**	

Cash and Marketable Securities	-Cash -Short Term Investments -Term Deposits	Current Debt	Bank overdraft Notes Payable Current portion of debt Current portion of capital lease obligation
Trade Receivables	Accounts Receivables Trade Debtors	Trade Payables	A/C Payables Trade creditors
Inventory	Inventory Finished Goods Raw materials WIP Stocks	Other Current Liabilities	Accrued expenses/liabilities Taxes payable Deferred revenue Customer advances Other payables Employee benefits Provisions
Other Current Assets	Prepaid expenses Taxes refundable Current assets of discontinued operations Due from associates Due from employees Deferred expenses	Non-current debt	Non-current borrowings Convertible notes Finance lease obligations
Non-current tangible assets	PPE Land Non current assets of discontinued operations	DTL	
Non current intangible assets	Goodwill Software development costs Deferred costs Trademark and licenses Customer Lists	Other non-current liabilities	
DTA		Minority Interest	
Other non-current assets	Investments in associates Non-current receivables Finance lease receivables	Shareholder's Equity	Share Capital Paid in Capital R/E Reserves Treasury Shares

- Assets = Liabilities + Equity
- Example: British American Tobacco plc lawsuits

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Provision			935		–935	
Deferred tax/ tax expense			–280		280	
			655		–655	

- Provisions textbook example, Adjustments for 2004, page 105-106
- The process for accounting adjustments can be expanded to increase the level of detail required by analysts.
- The level of detail required by analysts will be a function of the purpose for the analysis, the significance of the adjustment (or underlying transaction) or the amount of detail available.
- See lease example in the text page 98 – 102.

- Lecture example – Discussion question 2
  - See excel file on LMS
  - Fonterra example in the textbook page 99 to 101
  - Hint: interest rate implicit in the lease is used
  - Follow the steps on page 100 to 101

Standardized Format: Income Statement

Standard classification	Typical line items
Sales	Revenues Turnover Commissions
Cost of Sales	Cost of products sold, revenues, services, depreciation
Selling, general and administrative expenses	Marketing and sales Distribution Salaries and benefits Servicing and maintenance Depreciation of administrative facilities
Other operating expenses	Amortisation of intangibles Product development R&D Provision for losses on credit sales
Net interest expense (income)	Finance cost Interest income Interest expense
Investment Income	Share of income from associates Dividend income Rental income
Other Income	Gain in sale of investments/non-current assets FOREX gains

Other Expenses	Losses on sale of non-current assets FOREX losses Pre-tax loss from accounting changes Restructuring changes Merger expenses

Standardised format for Statement of changes in Equity

Standard Classification	Typical Line items
Revaluations	Gain on property reval. Gains (losses) on available for sale investments
Cash flow hedges	Amounts transferred to income/initial carrying amounts

Standardised Cash Flow Statement

Standard Classification	Typical Line items
Operating CF (other than net finance costs)	Cash from customers Payment to supplies Taxes paid Indirect Method: Profit before taxation Adjustments for depreciation and other non-cash items Change in working capital items
Investing CFs	Purchase/sale of non-current assets R&D Acquisition Acquisition of business (sale) Capital expend. Equity investments Capitalisation of computer software development costs
Net interest cost	Interest received Interest paid
Net debt issuance	Principal payments on debt Borrowings under credit facility Notes payable
Dividends	Cash dividends paid on ordinary shares Other cash distributions
Net issuance of shares (net of repurchases)	Proceeds from issuance on ordinary shares Issue of ordinary shares for services Purchase of treasury stock Issue of subsidiary’s shares

Financial Statement Distortion

- Adjustment to financial statements are made for the following reasons:
  - Accounting standards may not reflect the economics of the organisation
  - To remove management bias
  - To increase comparability of financial statements.

Accounting Standards

- Accounting standards may not reflect the economics of the organization; difficult to capture all of the conditions impacting the organization
- Assets be recognized when economic benefits flowing from an asset be probable before assets are recognized
- R&D
  - Research component of the expenditure has been expensed and not recorded as an asset
  - Cost of development recorded as an intangible asset; unlikely to bear any relation to the value of the financial benefits from the asset
- Assets
  - Uncertainty in control over assets
  - Uncertainty in benefits for assets
  - Measurement bases may not reflect current prices and may not be uniform (prudence)
- Non-financial assets recorded at historical cost (PPE, depreciated historical cost)
  - Accounting distortions arise form undervalued assets
  - IAS 2; inventory recorded at lower of cost or market (not overvalued)
  - Mitigated by use of FV measurement base
- Liabilities
  - Uncertainty in the amount of the obligation
  - i.e environmental clean up after mining, future warranty or insurance claims
- Accounting rules are imperfect
- Subjective estimates used
- Analyst must decide what to use and what not to use, and what must be adjusted.

Management Bias

- Considerable input into and discretion over financial reporting process
- Select accounting policies (LIFO vs FIFO), make accounting estimates (provisions, useful lives) and select level of disclosure
- Has more info on business activities than users (information asymmetry to make financial statement more informative or bias)
- To remove management bias
- Motivations for managers to act opportunistically and distort FS
  - Increase earnings to meet consensus analysts forecasts
  - Avoid loss reporting or a decline in earnings
  - Increase assets or income to meet earnings-related financial covenants in debt agreements
  - Increase or decrease earnings to reduce volatility in reported earnings
  - Increase or decrease earnings to ensure a higher bonus payout

    - Decrease earnings, when earnings are above the amount beyond which no additional bonus compensation is earned
- Opportunities for distorting FS can arise when major events occur
    - a change of top management
    - preparing for a public equity offering
    - business combinations (motivation to increase assets)
    - becoming a potential political target
- Depending on the circumstances, managers have the incentives to either increase or decrease earnings to increase or decrease assets or liabilities
- Structuring transactions to avoid accounting rules and to achieve a particular accounting outcome
- Management can structure transactions to avoid accounting rules to achieve a particular outcome

Comparability

- To increase comparability of FS
- Comparability across companies
    - Industry
- Comparability across time
    - Within the company
- Adjustments must be made to ensure the FS uniform for the next stage of analysis

- Note the holistic approach to these accounting adjustments.
- If an asset is overstated then either:
    - Another asset is understated (e.g., goodwill vs intangibles)
    - A liability is overstated (e.g., a lease asset and liability)
    - Equity (possibly profit) is overstated (e.g., asset revaluation reserve [equity] or asset impairment [profit]).

Common Distortions and Adjustments

- Some distortions that have been identified in the literature are:
    - Provisions example page 105 - 107
    - Asset impairment example page 107 - 108
    - Timing of revenue recognition example page 108 -109
    - Expense capitalisation example page 109 - 111

Provisions

- Recognise too much or too little provisions
- Includes; restructuring, inventories, bad debts, taxes, loan loss and insurance
- Manager has discretion in deciding whether obligation is probable and estimating the amount
    - More contingent liabilities (disclosed in the notes) are in fact certain = more liabilities should be recognised

Example:

- At end of 2005, BAT was defendant in 3810 US product liability cases
- Chose not to recognise a provision for potential damages
- Estimate of damages = $ 1 billion, not paid until 2006
- Incremental borrowing rate is 7%
- Adjustments
  - 1) Incorporate PV of obligation in 2004 financial statements; PV is $935m (discounted at 7%); expense in the income statement
  - 2) pre-tax expense results in lower profit; provision will become a tax expense in the future when taxes are paid.
    - Organisation increases current tax expense now and decreases DTL
    - 30% tax rate; amount of tax expense and deferred tax adjustments = $280m (935 x 0.3)
  - 3) 2005 financial statements, adjustments for 2004 must be incorporated in the opening balance of retained earnings = 935 x 0.07 = $65m
    - deferred tax adjustments = 65 x 0.3 = $20m
  - 4) in 2006 financial statements, the cumulative adjustments for 2004 and 2005 are incorporated into the opening balance of retained earnings
    - reassess likelihood and amount of obligation
    - assume BAT paid out the claim
    - provision is reversed and deferred tax adjustments too

Adjustments for 2004

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Provision			935		-935	
Deferred Tax/Tax Expense			-280		280	
			655		655	

Adjustments for 2005

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Operating Adjustment			655			-655
Interest Expense			65		-65	
Deferred Tax/Tax Expense			-20		20	
			700		-45	-655

Adjustments for 2006

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Opening Adjustment			700			-700
Provision Reversal:			-1000		1000	
Deferred Tax/Tax Expense			300		-300	
			0		700	-700

- Adjustments are likely to have a cumulative effect over several years and will normally result in a reversal

Asset Impairment

- Recognising too much or too little asset impairment of PPE, investments and intangibles
- Carrying amount, illiquid second-hand market
    - Estimates of FV is inherently subjective (goodwill and other intangible assets)
- Mgmt. can delay reporting for impairment

Example:

- $1.41bn overstatement of non-current intangible asset
    - need to be reduced
    - 170% of company's book amount of equity
- record deferred tax adjustments (tax = 50%)

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Write Down	-1410				-1410	
Deferred Tax			-705		705	
	-1410		-705		-705	

- if write down relates to depreciable asset, analyst must estimate the impact of the write-down on depreciation and amortisation expense in future years

Timing of Revenue Recognition

- aggressive revenue recognition = form of earnings management

Example:

1) In the quarter in which contracts were booked, sales and accounts receivables to decline by $27m
    a. Contracts were not announced until several days after the quarter's end

2) Cost of sales would decline and Inventory would increase to reflect the reduction in sales
    a. Cost of license revenue is 3% of license revenue ($0.8m)
3) Deferred tax adjustment (tax = 35%); = $9.2m = (27-0.8) x 0.35

Adjustment

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
A/C Receivable/Sales	-27				-27	
Other current assets/ cost of sales	0.8				0.8	
Deferred Tax			-9.2		9.2	
	-26.2		-9.2		-17	

-provided contracts were legitimate transactions, above adjustments imply the forecasts of the next quarter's revenue should include the $27m

Adjustment

	Assets	=	Liabilities	+	Equity	
					Profit for year	Other
Opening Adjustment	-26.2		-9.2			17
Reversals:						
A/C Receivables/Sales	27				27	
Other Current Assets/ Cost of sales	-0.8				-0.8	
Deferred Tax			9.2		-9.2	
	0		0		17	-17

Expense Capitalisation

- Capitalising and deferring too little or too much expenditure = earnings management
- IFRS; discretion management has in development expenditure (IAS 38 Intangible Assets), interest, or expenditure required to get inventory and PPE to current location and condition
- Deferred expenditure is capitalised into the cost of asset and impacts income
- Accounting standards may require expenditure to be expensed because potential future benefits can't be measured reliably

SEE TEXTBOOK EXAMPLE

Concluding Comments

- Recasting financial statements is an important step to facilitate comparability among financial statements analysed.
- Analysts should focus on evaluating and adjusting accounting measures that describe the firm's key strategic value drivers.
- It is important to keep in mind that many accounting adjustments will be estimates.

Case Study

1. Adjust the Income Statement and Balance Sheet for capitalising research & development expenditure reported for 2015 by +/- 10% (upwards and downwards) for your assigned company using the attached template. [6 marks]

2. Identify **one (1)** accounting policy of your assigned company, other than research and development, that is likely to be examined closely by Auditors and Analysts. Explain why the accounting policy would be of interest to both Auditors and Analysts. [3 marks]

- i.E LIFO vs FIFO
-

3. Given your analysis for Question 1 above, discuss **two (2)** possible motives for managers' of your assigned company to capitalise expenses. Your answer should refer to accounting ratios which are impacted by capitalising expenses. [6 marks]

- Higher net income
- Display higher assets
- Higher return on equity and return on assets
- Higher solvency ratios

Figure 8.2 Impact of Assets, Profitability on Financial Ratios

Impact of Assets, Profitability and financial ratios

	Initially		Later years	
Overall	Capitalizing	Expensing	Capitalizing	Expensing
Net income	Higher	Lower	Lower	Higher
EBIT	Higher	Lower	Lower	Higher
EBITDA	no effect	no effect	no effect	no effect
Stockholder equity	Higher	Lower	Lower	Higher
Total Assets	Higher	Lower	Higher	Lower
CFO	Higher	Lower	Lower	Higher
CFI	Lower	Higher	-	-

	Initially		Later years	
Liquidity ratios	Capitalizing	Expensing	Capitalizing	Expensing
Cash Flow from operation ratios	Higher	Lower	Lower	Higher

	Initially		Later years	
Activity ratios	Capitalizing	Expensing	Capitalizing	Expensing
Total asset turnover	Lower	Higher	Lower	Higher
Fixed asset turnover	Lower	Higher	Lower	Higher
equity turnover				

	Initially		Later years	
Investment ratios	Capitalizing	Expensing	Capitalizing	Expensing
ROA	Higher	Lower	Lower	Higher
ROE	Higher	Lower	Lower	Higher

	Initially		Later years	
Solvency ratios	Capitalizing	Expensing	Capitalizing	Expensing
debt to equity	Higher	Lower	-	-
Time interest earned	Higher	Lower	Lower	Higher
CFO to debt	Higher	Lower	Lower	higher

Recommended preparation activities:

- Review lecture notes and textbook examples
- Quick review of ratios presented in Chapter 19, Hoggett et al [ACCT1101 textbook]. If you don't have access to the textbook, then review your lecture notes from this course.

Remember the case study is open-book.