INVESTMENT KNOWLEDGE SERIES

ACCOUNTING & ANALYSIS

2nd Edition

CAPITAL CITY & Training Consulting

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Accounting & Analysis

CAPITAL CITY
& Training
Consulting

This 2nd edition published 2017 by Capital City Training Ltd

ISBN: 978-0-9569238-7-5

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At various points in the manual a number of financial analysis issues are examined. The financial analysis implications for these issues, although relatively standard in treatment, remain an opinion of the authors of this manual. No responsibility is assumed for any action taken or inaction as a result of the financial analysis included in the manual.

Previous editions:

Originally published 2011 as "Accounting" (978-0-9569238-2-0), Capital City Training Ltd

About Capital City Training & Consulting

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1 • Introduction

This manual aims to provide investment bankers with the required level of accounting knowledge necessary to:

- Interpret, understand and adjust the numbers within a set of financial statements
- Create meaningful and appropriate forecast financials.

The intention of this manual is to furnish investment bankers with a thorough grounding in accounting and its impact on analysis.

Accounting rules provide the guidance and requirements for accountants when they prepare the financial statements of organisations. Although accounting rules still vary across the globe, the vast majority of companies now report under either International Financial Reporting Standards (IFRS – formerly International Accounting Standards, IAS) or United States Generally Accepted Accounting Principles (US GAAP).

For a number of years there has been a concerted effort to bring IFRS and US GAAP closer together, and there are many joint projects considering how to improve the rules in a way that eradicates the remaining differences. There is early talk of complete convergence to one set of global accounting rules by 2014.

There are still many differences between IFRS and US GAAP, however most of them are rather obscure and technical, and often don't actually result in different financial reporting. There are however a smaller number of differences which are important and may have a significant impact on how the performance or position of an enterprise is reported.

This manual generally avoids talking specifically about IFRS or US GAAP rules, but instead refers simply to the accounting rules. Where this is the case, the reader can assume that the rules are effectively the same. Where the differences do arise, the page splits into two, with each set of rules explained separately.

Accounting effect on key metrics

The focus of the manual is the analysis impact of accounting issues. Set out below are the key issues which will be covered, whether these issues have an impact on key metrics and where in the manual they will be discussed.

	Impact on						
	FCF	EBITDA	EBIT	EPS	Equity	Net debt	EV
Balance sheet items							
Current vs. non-current						✔	✔
Tangible assets							
Depreciation	?		✔	✔	✔		
Impairment tests and write downs			✔	✔	✔		
Revaluation			✔	✔	✔		?
Capitalisation of interest		✔	✔	✔	✔		
Intangible assets							
Goodwill – group / individual entity level					✔		
Amortisation periods			✔	✔	✔		
Tax deductibility	✔			✔	✔		
Impairment tests and write downs			✔	✔	✔		
Revaluations			✔	✔	✔		
Research and development		✔	✔	✔	✔		
Other internally generated intangibles	?	✔	✔	✔	✔		
Capitalisation of software cost	?	✔	✔	✔	✔		
Brands, licences, copyrights	?	✔	✔	✔	✔		
Liabilities							
Net debt definitions					?	✔	✔
Leasing – finance / capital and operating	✔	✔	✔	✔	✔	✔	✔
Sale and leaseback transactions	✔	✔	✔	✔	✔	✔	✔
Provisions							
Obligation vs. prudence		✔	✔	✔	✔	?	?
Deferred retirement benefits		✔	✔	✔	✔	?	?
Deferred tax				✔	✔		

	Impact on						
	FCF	EBITDA	EBIT	EPS	Equity	Net debt	EV
Capital instruments							
Debt vs. equity	?			✔	?	?	✔
Preference shares	?			✔	?	?	✔
Income statement items							
Revenue recognition		✔	✔	✔	✔		
Events after the balance sheet date		✔	✔	✔	✔		
Discontinued operations	✔	✔	✔	✔			
Exceptional items	?	?	?	?			
Extraordinary items	?	?	?	?			
Treatment of capitalised costs	?	✔	✔	✔	✔		
Share based payments		✔	✔	✔	✔	✔	✔
Foreign exchange rates		✔	✔	✔	✔	✔	✔
Hyper inflation		✔	✔	✔	✔	✔	✔
The 2nd income statement				✔			
EPS – basic / diluted				✔			
Cash flow statements							
Cash definitions	✔					✔	
Categories of cash flows	✔						
Free cash flow	✔						
Mergers and acquisitions							
Associates – equity method	?	✔	✔	✔	✔	✔	✔
Joint ventures – equity method / proportional consolidation	?	✔	✔	✔	✔	✔	✔
Purchase / acquisition accounting	✔	✔	✔	✔	✔		
Control	✔	✔	✔	✔	✔	✔	✔
Consideration	✔			✔	✔	✔	✔
Goodwill / fair value accounting		✔	✔	✔	✔		
Negative goodwill			✔	✔	✔		
Minority interests	✔			✔	?		✔
Demergers	✔	✔	✔	✔	✔		
Special purpose entities	✔	✔	✔	✔	✔	✔	✔

Impact on analysis

The derivations of key metrics are subject to accounting issues that may undermine their analysis. The appendices include a table indicating the sort of adjustments which could be made.

As ever with analysis, the key is to ensure consistency of treatment of like items throughout. Consequently, not all adjustments are appropriate at the same time and when some adjustments are made, others become inappropriate for the same category.

For example, if joint ventures (JVs) are deemed to be core to the business' activities, then it is not good enough to merely include the results of the JV in EBIT – if the sales figure does not include the JV's sales then margins will be inconsistent; if interest does not include the JV's interest then coverage ratios will be inconsistent; if net debt doesn't include the JV's net debt then enterprise value will be inconsistent, etc.

More information is available on each adjustment in the relevant section in the manual.

2 • Accounting and analysis fundamentals

Accounting framework

Underlying most international accounting is a conceptual framework. Without knowledge of this framework, the full implications of the accounting we shall discuss in the later sections may not be fully appreciated.

Reporting elements

Although this may seem a very basic way to commence an accounting manual, it is a necessary step. As more complicated areas of accounting are examined, such as mergers and acquisitions, it is the basic understanding of the fundamentals of accounting that often let people down.

As a starting point we shall briefly examine the basic components of financial statements. This basic framework provides an approach to discussing more complicated accounting later.

There are four key reporting elements:

Asset Past event → present control → future benefit	**Liability** Past event → present obligation → future outflow
Expense Benefit used up	**Income** Benefit earned

Balance sheet components

Assets

An asset is a resource that is:

- Controlled by an entity as a result of past events; and
- From which future economic benefits are expected to flow.

Typically, this would be something owned by the company, such as a machine or cash, or another financial asset created by a loan but there are many different types of asset that will be covered in this chapter.

Liabilities

> A liability is a present obligation:
>
> - Arising from past events
> - The settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Typically these are amounts of money owed to third parties as a result of some kind of contract.

Asset and liability measurement

> Assets and liabilities are typically measured:
>
> - Based on cost; or
> - At fair value.

	Asset	Liability
Cost	Cost is the amount of cash paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction	Cost is the amount of proceeds received in exchange for the obligation or the amount of cash expected to be paid to satisfy the liability in the normal course of business
Fair value	Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date	Fair value is the price that would be paid to transfer a liability in an orderly transaction between market participants at the measurement date

Measurement bases differ between:

- Asset and liability categories; and
- Countries.

Recognition criteria

Assets and liabilities are only recognised if:

- It is probable that any future economic benefit will flow to or from the entity
- The cost or value can be measured with reliability.

For example, a contingent asset such as a possible cash inflow resulting from a legal action will not be recognised as an asset in the financial statements if there is significant uncertainty over the outcome, or the amount cannot be reliably measured.

In assessing whether an item meets the definition of an asset, liability or equity, attention needs to be given to its underlying substance and economic reality and not merely its legal form.

Equity

Equity is the residual interest in the assets of the entity after deducting all its liabilities. Equity can be thought of as the residual interest that the owners have in the business, or the owner's claim on the residual assets.

The two principal elements of equity are:

- Paid in capital – the equity (stocks or shares) that has been issued to the owners of the business
- Retained earnings – the profits of the company, since it started, that have not been paid out as dividends.

Every year, the total profit or loss from the income statement is transferred into retained earnings. So retained earnings represent the cumulative retained profits and losses of the company since day one.

Income statement components

It is important to understand the differences between income and expenses that appear on the income statement, and cash inflows and outflows that appear on the cash flow statement. Neither of the income statement components necessarily has any direct relationship with cash or cash equivalents.

Income

> Income is recognised in the income statement when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably.

This means income recognition occurs simultaneously with the recognition of increases in assets or decreases in liabilities.

For example, if an investment measured at fair value in the balance sheet increases in value by $100, then not only does the amount recorded in respect of the asset increase, but income will be recognised (even though there is no cash inflow).

Expenses

> Expenses are recognised in the income statement when a decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably.

So, if an investment measured at fair value in the balance sheet falls in value by $100, then the decrease in value of the asset will be accompanied by the recognition of an expense in the income statement (even though there is no cash outflow).

Cash flow statement

The cash flow statement is a record of cash flows over an accounting period. At its simplest it is a list of cash inflows and cash outflows, and it explains the difference between opening and closing cash on the balance sheet.

For ease of interpretation, cash flows are categorised as operating, investing or financing. This distinction is explained further later in this chapter.

Accounting mechanics

An understanding of the relationship between the income statement and the balance sheet is essential before moving on to the analysis and interpretation of financial statements.

Balancing balance sheet

The balance sheet of a company will always balance:

Assets = **Liabilities** + **Equity**

Part of the reason for this has been touched upon above, the fact that changes in assets and liabilities are often accompanied by incomes or expenses in the income statement, which flow though to retained earnings within equity.

In fact, whatever happens at a company, there will always be two equal and opposite effects in the financial statements, maintaining the equilibrium.

Dual effect

When accountants talk about double-entry bookkeeping and debits and credits they are referring to the fact that there is always a dual effect whenever anything impacts a set of financial statements.

This is best illustrated with some examples. The table illustrates, for a number of events, the impact on assets, liabilities, income and expenses:

Company borrows money from the bank	Cash (asset)	↑	Loan (liability)	↑
Equal and opposite movements on the balance sheet				
Company buys a vehicle	Cash (asset)	↓	Vehicle (asset)	↑
Equal and opposite movements on the balance sheet				
Company pays staff wages	Cash (asset)	↓	Wages (expense)	↑
The expense will reduce retained earnings (equity) which will match the fall in assets				
Company sells goods (cost $6) for cash of $10	Cash (asset) Inventory (asset)	↑ 10 ↓ 6	Sales (income) Cost of sales (expense)	↑ 10 ↑ 6
Balance sheet assets increase by 4 which matches the 4 increase in retained earnings				

This basic interaction between the income statement and the balance sheet underpins all of accounting. Regardless of what has just happened at a company, the accounting for it will always be represented by one or more of these dual effects.

Presentation of financial statements

The exact content and presentation of financial statements will vary widely depending on the regime (IFRS or US GAAP) and the particular requirements and needs of the preparers and the users of the statements. Both IFRS and US GAAP have a minimum requirement for presentation on the face of the balance sheet, income statement and cash flow statement but, beyond this minimum, practice varies considerably.

Presented here are typical examples of IFRS (Sainsbury) and US GAAP (Wal-Mart) income statements, balance sheets and cash flow statements for comparison purposes. In addition there is an IFRS Statement of Comprehensive Income (formerly Statement of Recognised Income and Expense) and a US Statement of Comprehensive Income. Although there are many differences in presentation, there are many similarities. The similarities have been highlighted.

Continuing Capital City's Investment Knowledge Series, the Accounting & Analysis manual is an essential companion for anyone moving into the world of financial analysis and/or valuation. Starting with the fundamentals of the accounting world, linking the flow of information through the primary statements, the manual goes on to give the reader insight to how accounting information can differ and the impact it can have on analysis and valuation. IFRS and US GAAP are compared where relevant.

First edition published under the title "Accounting".

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ISBN 978-0-9569238-7-5
9 780956 923875